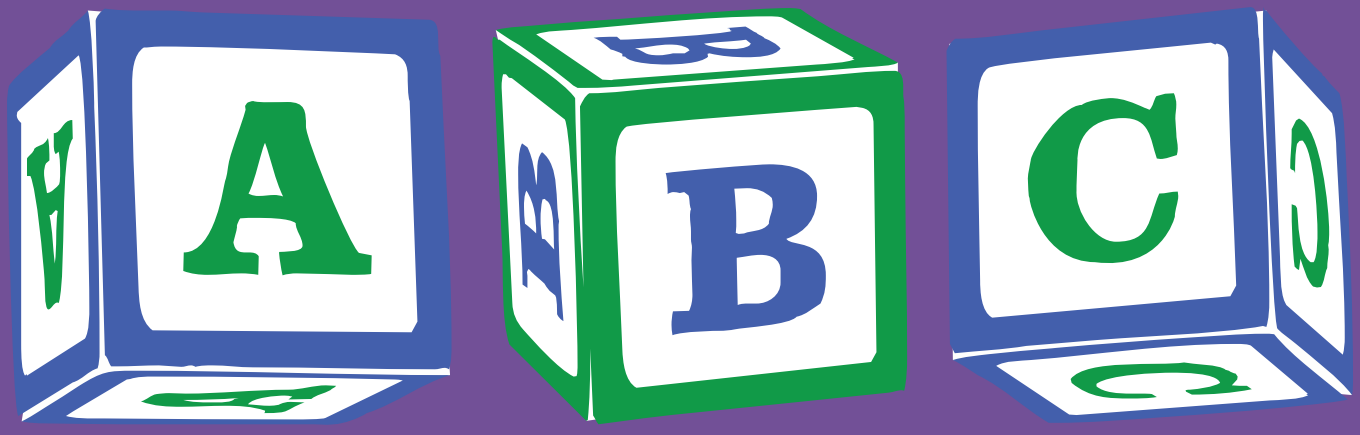
Embedded Instruction for Early Learning

Tools for Teachers - CA

Module 3: When to Teach & How to Teach



Module 3: When to Teach & How to Teach

Workbook and Practice Guide

(Fall, 2017)

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Module 3:
When to Teach & How to Teach

Workbook & Practice Guide

Welcome to the third in a series of four workshops focused on embedded instruction for early learning. The workshops are organized as learning modules. This workshop is Module 3: When to Teach and How to Teach. The four learning modules are part of a comprehensive professional development "toolkit" known as *Tools for Teachers*.

The Module 3 Workbook is designed for you to use during the workshop. Follow along with the slides and activities. Write your notes and ideas directly into this booklet. After the workshop, review the material for a refresher on what you have learned. The Module 3 Workbook starts on **page 1** of this booklet.

The Module 3 Practice Guide is designed for you to use back home in your classroom. The guide provides additional information and references related to the content of this workshop. Use the Practice Guide to learn more about embedded instruction, refresh your memory, or use the materials to help your team learn about embedded instruction. The Module 3 Practice Guide starts on **page 85** of this booklet.

Table of Contents

Workbook

Embedded Instruction for Early Learning
Tools for Teachers

Day 2:
When to Teach
&
How to Teach

(Fall, 2017)

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Notes:

Ground Rules

- Settle in and be comfortable
- Participate, ask questions, and reflect
- Post questions in the parking lot
- Talk or text in the hallway
- Silence phones
- Get to know each other and enjoy…

2

Notes:

Tools for Teachers Workshops

Module 1: Overview Webinar

Module 2: What to Teach

Module 3: When to Teach & How to Teach

Module 4: How to Evaluate

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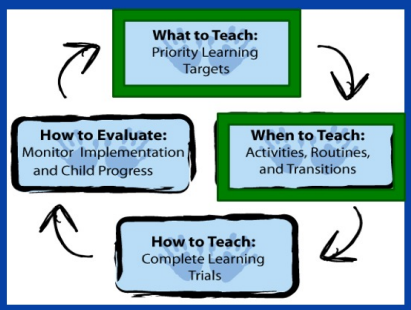
Notes:

Embedded Instruction for Early Learning

Tools for Teachers

When to Teach



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Notes:

Key Practices: When to Teach

5. Develop and implement activities, routines, and transitions that are designed to support the engagement and learning of all children.
6. Select which activities, routines, and transitions are logical and appropriate to embed meaningful opportunities to practice a specified priority learning target behavior.
7. Use massed, spaced, or distributed instructional learning trials to embed multiple opportunities to practice the priority learning target behavior within and across activities, routines, and transitions, considering frequency, intensity, and duration of instruction needed.
8. Develop an **activity matrix** to record when and how many instructional trials I plan to embed to optimize child learning on priority learning targets.

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Notes:

After completing When to Teach, you will be able to:

- Identify the characteristics of high-quality activities
- Select activities, routines, or transitions that are logical and appropriate for embedded instruction
- Plan which and how many instructional learning trials to embed across activities, routines, and transitions
- Develop an Activity Matrix

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Notes:

Embedded Instruction for Early Learning
Tools for Teachers

High Quality Activities: Balancing the Classroom Schedule

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Notes:

What Makes an Activity?

- High-quality activities
  - Developmentally appropriate
  - Flexible and dynamic
  - Balance between adult-guided and child-initiated
- Multiple and meaningful embedded learning opportunities
  - Children are interested and engaged
  - Skills targeted are part of natural flow or logical to activity (aka a good "fit")
  - Sufficient opportunities

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Notes:

High-Quality Activities

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Notes:

What are Activities?

- Types of "Activities"
  - Activities
  - Routines
  - Transitions
- Degree of "Structure" Continuum

Adult-Guided……..Child-initiated

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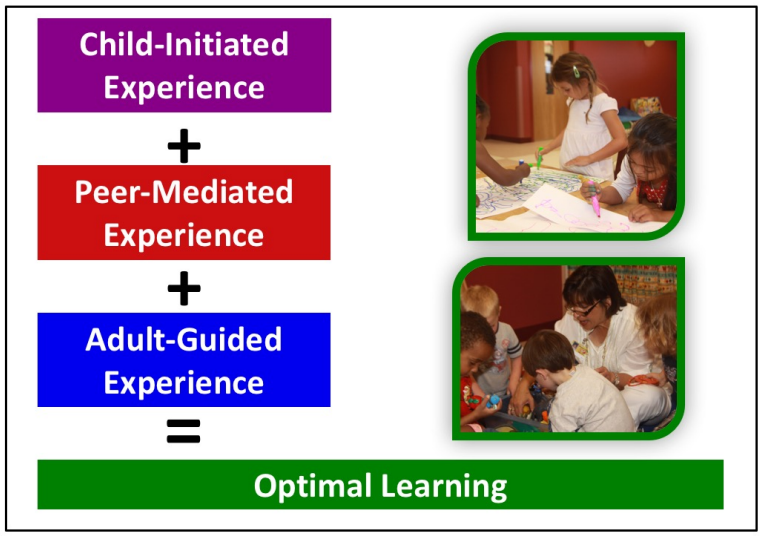
Notes:



Adapted from Epstein, A.S. (2014). *The intentional teacher: Choosing the best strategies for young children's learning* (2nd ed.). Washington, DC: NAEYC. 11

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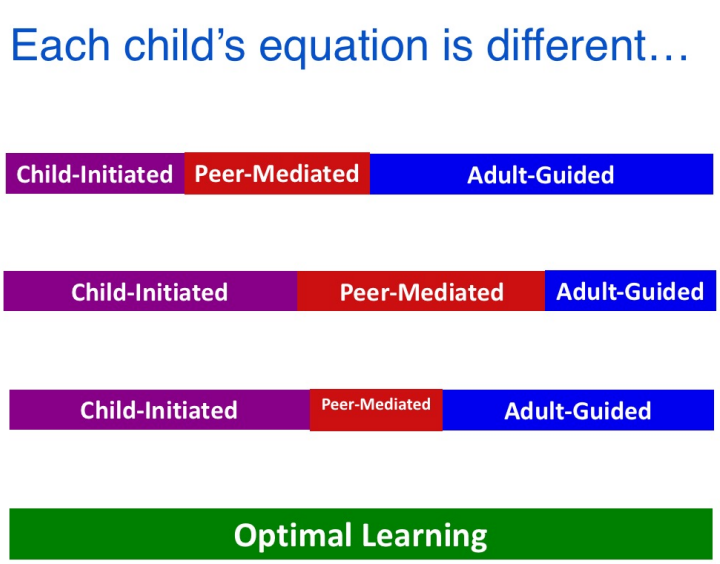

Notes:

Adult-Guided Activities

- Planned and led by the teacher
- Includes large-group and small-group activities
- Often "structured" with more limited opportunities for child choice or free expression

Adult-Guided ..... Child-Initiated

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Notes:

Child-Initiated Activities

- Frequent opportunities for child choice and free expression
- Children initiate and persist in an activity
- Includes free choice, center time, or other activities that the child chooses to do and completes using materials they choose

Adult-Guided ..... Child-Initiated

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Notes:

Transitions & Routines

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Notes:

Let's Analyze Your Daily Schedule and Activities

- Program Requirements
  - Scheduled times for lunch, outside, therapies?
- Number of Staff and Children Present
  - Consistent or variable?
- Small/Large Group
  - Mix?
- Adult-Guided vs. Child-Initiated
  - Balance?
- Location
  - Inside classroom, outdoors
- Variation across Days
  - Flexible and dynamic?

What's working well?

What might you want to change?

Why?

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Notes:

Embedded Instruction for Early Learning
Tools for Teachers

High Quality Activities: Finding the "Fit"

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Notes:

Find the "Fit"

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Notes:

One-Step Behaviors/Skills for Embedded Instruction

- More easily embedded
- "Single" behavior or response
- Only one behavior the child does to receive a positive consequence

One-Step Skill (Discrete/Response Class)	Multi-Step or "Chained" Skills
• Name objects using one word • Count up to 3 moveable objects • Sort objects by shape • Use 2-3 words to request objects from peers and adults • Give an object to a peer • Sign "help"	• Wash hands (water on, soap, rinse, towel, water off, trash) • Complete steps of transition (clean up, select a visual cue, move to the correct center, and begin to play) • Solve a social problem (identify the problem, generate solutions, select a solution and try it out)

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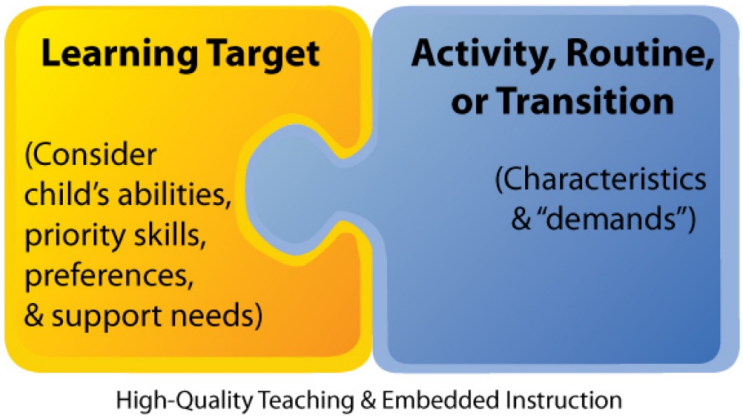
Notes:



High-Quality Teaching & Embedded Instruction

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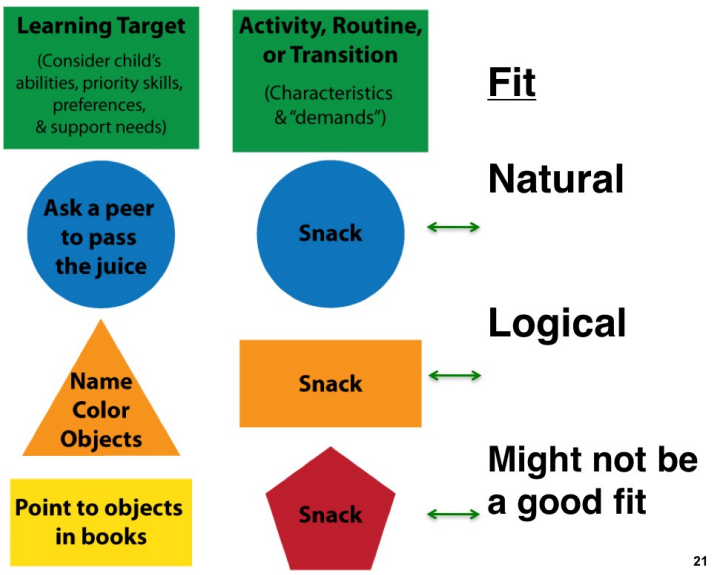
Notes:


Learning Target
(Consider child's abilities, priority skills, preferences, & support needs)
Activity, Routine, or Transition
(Characteristics & "demands")
Fit
Ask a peer to pass the juice
Snack
Natural
Name Color Objects
Snack
Logical
Point to objects in books
Snack
Might not be a good fit
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Notes:


Embedded Instruction for Early Learning
Tools for Teachers
High Quality Activities: Create an Activity Matrix
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Notes:

Activity Matrix

An **Activity Matrix** helps to ensure teaching occurs.

It reminds teachers of:

- the planned schedule of activities,
- the number and type of activities in the day,
- the PLTs and ELOs planned, and
- the number of adults who are able to assist.

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Notes:

Making an Activity Matrix

Step 1: List a predictable, balanced classroom schedule of activities – list the activities and times of day in the left-hand column of the chart

Step 2: Create columns to the right for particular children

	Mia	Matthew	Leo
Arrival			
Morning Activity/Free Play			
Breakfast			
Circle			
Table Games			
Outdoor Play			
Snack			
Centers			
Departure			
Transitions			

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Notes:

A Well-Planned Activity Matrix

Things to think about:

- "Fit" between the child's priority learning target and the activity
- Consider natural and logical locations in which the behavior occurs
- Consider staff who are available during daily activities
- Identify the number of opportunities needed for practice
- Include a sufficient numbers of trials given the child's phase of learning

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Notes:

Activity Matrices in the Classroom

We can use activity matrices in a variety of ways to support embedded instruction.

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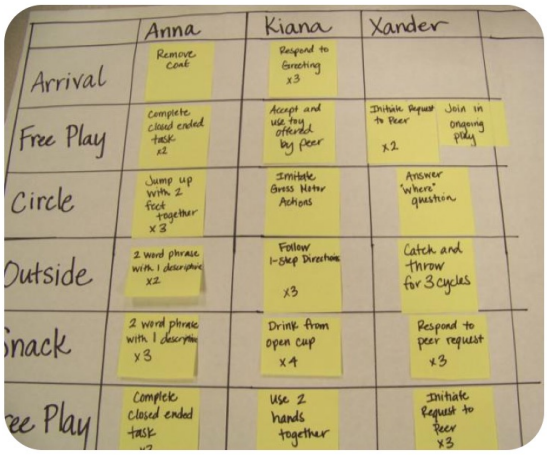
Notes:

Class Activity Matrix



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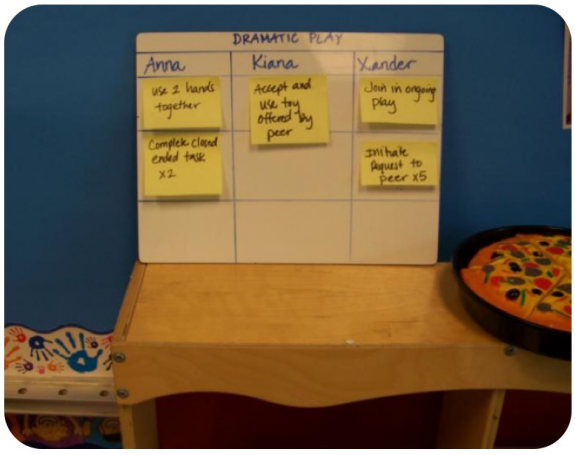
Notes:

Specific Area of Classroom Matrix



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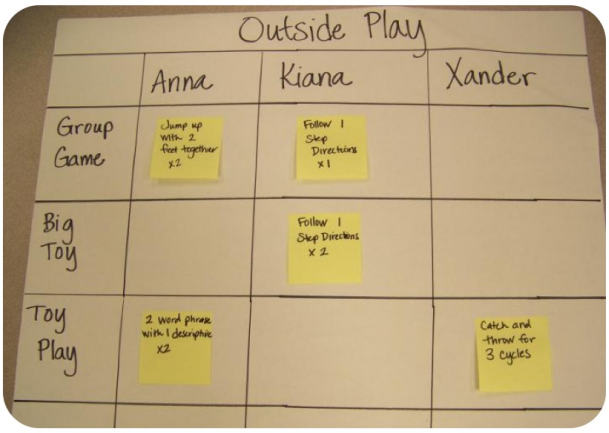
Notes:

Scheduled Activity and Associated Activity Types Matrix



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Notes:

Data Collection Plan Matrix

	Mia	Matthew	Leo
Arrival			
Morning Activity	Name colors **Assistant-M, T, W**		Sort objects by color **Assistant-M, T, W**
Breakfast	1-2 word request for object **Team Rotate Each Day-Daily**		
Circle		Move objects or himself in relation to another object or location **Assistant-Daily**	
Table Games	1-2 word request for object **Activity Facilitator-Daily**	Hold marker/paintbrush and make markings on paper **Activity Facilitator-Daily**	
Outdoor Play		Move objects or himself in relation to another object or location **Team Rotate Each Day-Daily**	
Snack			
Centers	Name colors **Teacher-M, T, W**	Hold marker/paintbrush and make markings on paper **Teacher-Daily**	Sort objects by color **Activity Facilitator-T/TH**
Departure			
Transitions			

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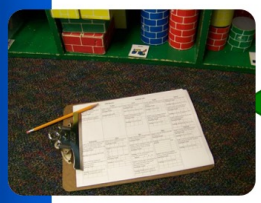
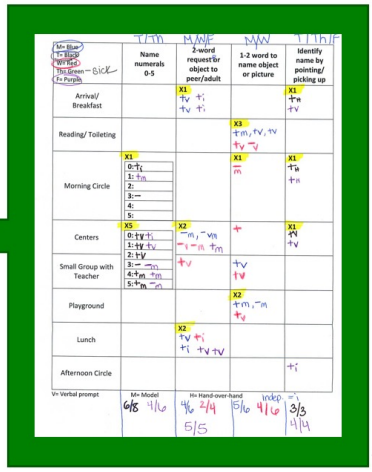
Notes:

Data Collection Matrix for an Individual Child





	Name numerals 0-5	2-word request for object to peer/adult	1-2 word to name object or picture	Identify name by pointing/ picking up
Arrival/ Breakfast		X1 +v +i +v +i		X1 +n +v
Reading/ Toileting			X3 +m, +v, +v +v -v	
Morning Circle	X1 0:-i 1: +n 2: 3:--- 4: 5:		X1 -m	X1 +n +n
Centers	X5 0: +v +i 1: +v +v 2: +v 3: -- -m 4: +m +n 5: +m -m	X2 -m, -m -i -m +m	+	X1 +v +v
Small Group with Teacher		+v	+v +v	
Playground			X2 +m, -m +v	
Lunch		X2 +v +i +i +v +v		
Afternoon Circle				+i

V= Verbal prompt | M= Model 6/8 4/6 | H= Hand-over-hand 4/6 2/4 5/5 | Indep 5/6 4/6 3/3 4/4

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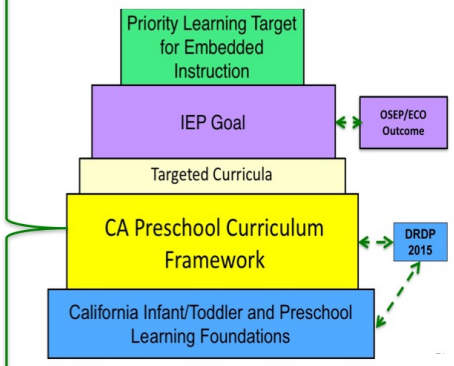
Notes:

The Preschool Standards and Curriculum are the Foundation for Embedded Instruction



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Notes:

Linking to General Preschool Curriculum & Activities

Free Play	Mia	Matthew	Leo
Blocks	Name colors (x2)	Move objects or himself in relation to another objects or location (x2)	
House		Move objects or himself in relation to another objects or location (x2)	
Table Toys	Give/Point to big/little object (x3)		
Art		Hold marker/paintbrush and make markings on paper (x6)	
Sand/Water			Sort objects by color (x3)
Books	Name object in a picture (x3)		

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Notes:

General Preschool Activities

Weekly Topic: BUGS	Free Play
Blocks	Models of bugs built from blocks (add duplo)
House	Ant farm
Table Toys	Bug and butterfly puzzles; lotto game with bug stickers
Art	Build a bug (build bugs from craft leftovers–top rolls, buttons, boxes, string) Paint a picture of a bug
Sand/Water	Plastic bugs for counting and sorting
Books	The Bugliest Bug, The Little Squeegy Bug, I Love Bugs, Everything Bug: What Kids Really Want to Know about Bugs (Kids' FAQ's) A photograph album with photos of insects from our nature walk Word and picture matching on felt board (grasshopper, ladybug, spider, ant, firefly, etc.)

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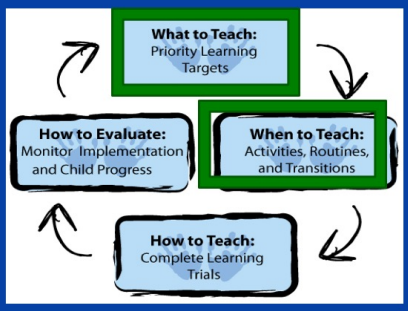
Notes:

Embedded Instruction for Early Learning
Tools for Teachers

Putting the Practices Together:
What to Teach
When to Teach



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Notes:

Considering What to Teach and When to Teach

- What does the PLT tell you about ***when*** the trials should occur?
- What does the PLT tell you about ***how many*** trials should occur?
- Davion will use 3-word phrases when making requests (e.g., I want___, my turn please) to an adult or peer during free play, snack, and class activity time when asked by an adult ("What do you want?") at least four times a day across two activities for four consecutive days.

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Notes:

Linking PLT and the Activity Matrix

Davion will use 3-word phrases when making requests (e.g., I want___, my turn please) to an adult or peer during free play, snack, and class activity time when asked by an adult ("What do you want?") at least four times a day across two activities for four consecutive days.

	Davion	Sam	Cindy
Arrival		Point to name—2	Greet peers—2
Circle		Point to name—1	
Centers	Initiate play by asking to join—2 Count 3 objects—2	Point to shapes—5 Use 1 word to request more—5	Use both hands to pour—2 Use 2 words to request preferred item—5
Outside	Initiate play by asking to join –2	Jump over small objects—5	Greet peers—2
Snack	**3-word phrases for requests—3** Count 3 objects—2		Use both hands to pour—5
Class Activity	**3-word phrases for requests—3**	Point to name—2 Point to shapes—3	Follow 1-step directions—3
Free Play	Initiate play by asking to join —2 Count 3 objects—2 **3-word phrases for request—3**	Use 1 word to request more—5	Use 2 words to request preferred item—5
Departure		Jump over small objects—2	Follow 1-step directions—1
Transitions	Walk up and down stairs—6		Follow 1-step directions—2

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Notes:

Ensuring a "Sufficient" Number of Learning Trials

Learning trials can be distributed, massed, or spaced **within** or **across** activities

Distributed **Massed** **Spaced**

Learning trials
should occur in a
context that is meaningful for the child.

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Notes:

Embedded-Distributed Trial

Distributed Trials

- Learning trials embedded into activities or routines and distributed throughout the day
- Time between learning trials to perform other skills or participate in other activities

Promotes Mastery

Might be helpful to support the maintenance and generalization of a learned skill

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Notes:

Notes:

When is Leo Practicing?

In this video, we will watch Leo across a few activities throughout his preschool day. In the table below, put a checkmark next to the activities in which Leo practiced navigating stairs or obstacles using his hands for support. How many opportunities did Leo have to practice within each activity?

Priority Learning Target: Leo will independently navigate stairs and obstacles by using his hands for support during gym, outdoor play, and transitions. He will do this for 8 out of 10 opportunities per day for one week.

Daily Activities	When did Leo practice navigating stairs or obstacles using his hands for support?
Arrival	
Free Play	
Circle	
Outside/Gross Motor Play	
Snack	
Class Activity	
Departure	
Transitions	

Embedded-Massed Trial

Massed Trials

- Learning trials embedded into everyday activities and routines and delivered very closely together in time
- Focus on one behavior with repeated practice

Promotes Learning
Might be helpful when child is acquiring a skill or becoming fluent in using a skill

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Notes:

Notes:

Massed Trials for Maxford

As you watch the video, tally how many opportunities Maxford has to practice his priority learning target skill. Then answer the questions provided.

Priority Learning Target: Maxford will independently walk up one step or down one step during outdoor play and transitions, for 80% of the opportunities presented each day for 3 consecutive days.

How many opportunities does Maxford have to practice?

What makes these trials massed?

How do these opportunities for practice promote acquisition of Maxford's priority learning target?

Embedded-Spaced Trial

Spaced Trials

- Learning trials inserted into everyday activities and routines with pauses between trials
- Practice on target behavior spaced between another behavior

Promotes Learning and Mastery

Might be helpful when child is acquiring a skill or becoming fluent in using the skill

Might be helpful to support the maintenance and generalization of a learned skill

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Notes:

Notes:

Spaced Learning Trials with Lily

Watch the video and count how many trials there are for Lily to practice pouring liquids. Then answer the questions provided.

Priority Learning Target: Lily will pour liquids without spilling, when asked by peer or adult, during meals and outdoor play. She will do this on at least 4 occasions each day for one week.

How many trials are there for Lily to practice pouring liquids?

What behaviors do you see occurring between trials?

How does providing spaced trials during snack support Lily's acquisition or fluency of her priority learning target skill?

Let's Try It!

- Create an activity matrix with your classroom schedule and select a PLT
- Look carefully at the **activities** and **criterion**
- Consider the "fit" between the PLT and your ongoing activities, routines, and transitions
- Make a decision about ***when*** and ***how many*** trials you plan to deliver for that PLT

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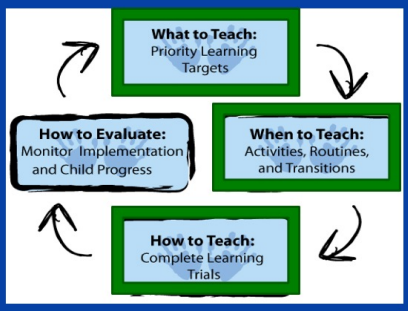
Notes:

Notes:

Classroom Activity Matrix
(Three Children)

Embedded Instruction for Early Learning
Tools for Teachers

How to Teach



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Notes:

Key Practices: How to Teach

8. Use and fade systematic prompting strategies to teach the priority learning target behavior and promote child engagement and learning.
9. Implement **complete learning trials** that include (a) an environmental arrangement and/or prompt to elicit the priority learning target behavior (antecedent), (b) additional help to elicit the priority learning target behavior if the behavior does not occur, and (c) an appropriate response following the child behavior (consequence). **WE CALL THIS A COMPLETE LEARNING TRIAL!**
10. Individualize an **instructional plan** based on the characteristics of the child (e.g., preferences, interests, phase and pace of learning) and the target behavior (e.g., type of skill and level of support needed)..

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Notes:

After completing How to Teach, you will be able to:

- Identify the instructional components of complete learning trials
- Develop instructional plans, including the following components:
  - How to identify the target behavior
  - What to say or do to elicit the target behavior (antecedent)
  - What additional help (prompts) to provide, if the child does NOT demonstrate the target behavior
  - How to respond when the target behavior occurs (consequence)
  - What feedback to provide to end the trial, if child does not demonstrate the target behavior after additional help

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Notes:

Remember the webinar…

Child uses 2-3 words to request (e.g., open please, I need help, more goldfish), following an adult prompt during meals, centers, and transitions. I will know he has accomplished this target when he can make a request in each of the 3 activities for 3 out of 5 days.

Antecedent → **B**ehavior → **C**onsequence

What will you do or say?	**What do you want the child do?**	**What will you do if the child does the behavior?**
Set-up situations in which child will need help Say to him – "Tell [peer] that you need help, s/he'll help you."	Ask peer for help (e.g., open please, I need help, help me [peer])	Child gets the help he needs Teacher or peer may provide praise

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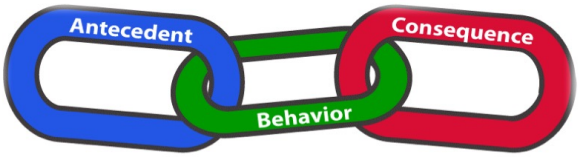
Notes:

Complete Learning Trial



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Notes:

Let's Look at an Example

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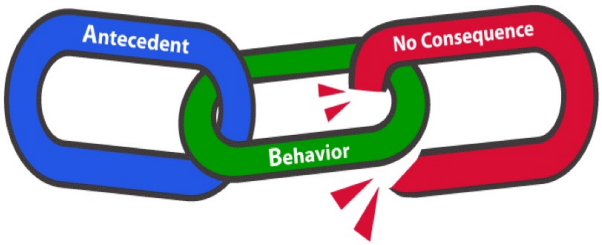
Notes:

Incomplete Learning Trial



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Notes:

Let's Look at an Example

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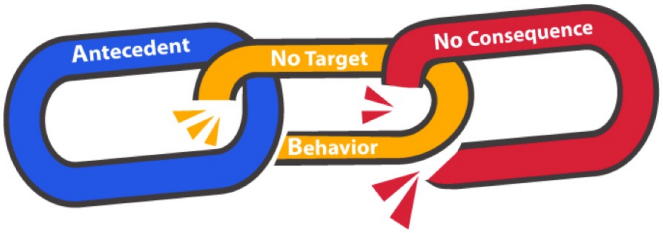
Notes:

Another Incomplete Learning Trial



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Notes:

Let's Look at an Example

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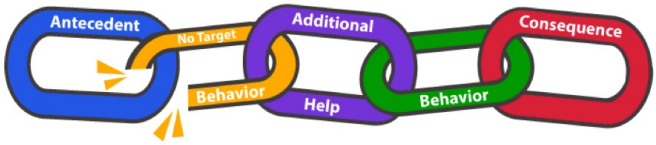
Notes:

Another Complete Learning Trial



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Notes:

Let's Look at an Example

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Notes:

Learning Trials

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Notes:

Why are Complete Learning Trials Important?

- Young children need sufficient learning opportunities
- Children should experience high quality environments, responsive interactions, and effective instruction
- Embedded instruction does not necessarily result in early learning if we do not consider A-B-C and ensure complete learning trials

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Notes:

Planning For Success: Developing Instructional Plans

- Describe the target behavior
- Plan for how you will implement each component of a complete learning trial
  - Antecedents
  - Additional Help
  - Consequences/Feedback
- Plan for collecting data on your implementation of complete learning trials
- The **instructional plan** is a tool for planning for the components of complete learning trials, but might not be needed for every priority learning target.

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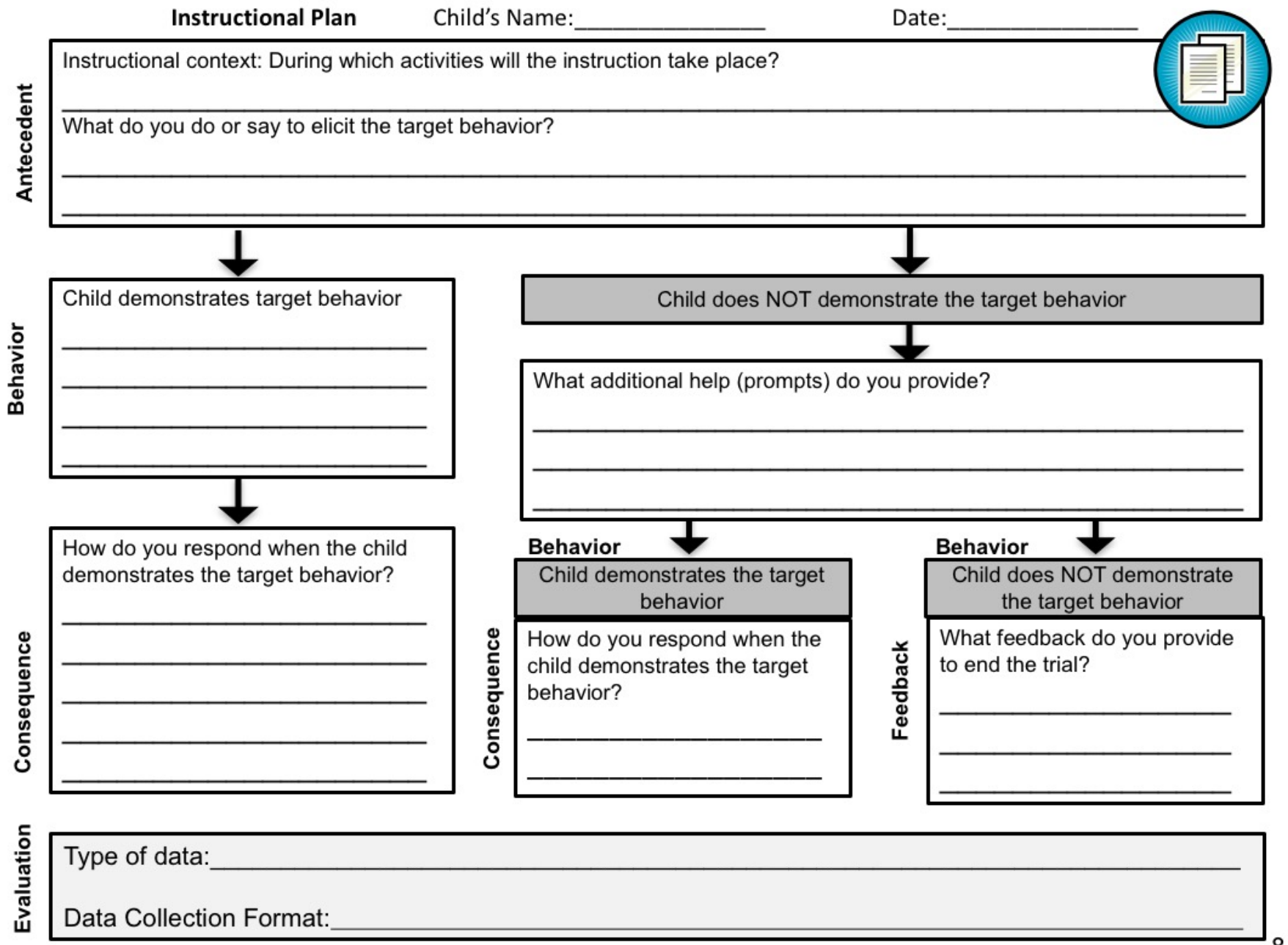
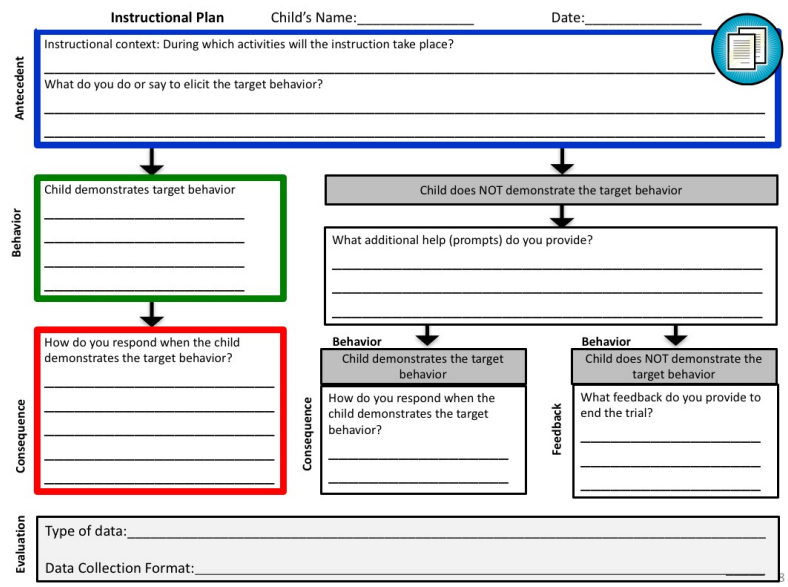
Notes:

Notes:


Instructional Plan
Child's Name:_____
Date:_____
Antecedent
Instructional context: During which activities will the instruction take place?
What do you do or say to elicit the target behavior?
Behavior
Child demonstrates target behavior
Child does NOT demonstrate the target behavior
What additional help (prompts) do you provide?
Consequence
How do you respond when the child demonstrates the target behavior?
Behavior
Child demonstrates the target behavior
Consequence
How do you respond when the child demonstrates the target behavior?
Behavior
Child does NOT demonstrate the target behavior
Feedback
What feedback do you provide to end the trial?
Evaluation
Type of data:_____
Data Collection Format:_____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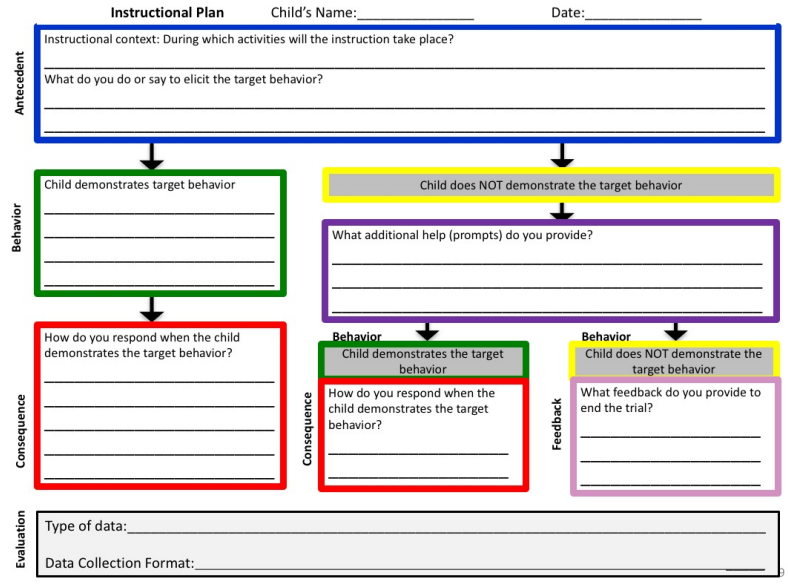
Child demonstrates the target behavior
Consequence
How do you respond when the child demonstrates the target behavior?
Behavior
Child does NOT demonstrate the target behavior
Feedback
What feedback do you provide to end the trial?
Evaluation
Type of data:
Data Collection Format:

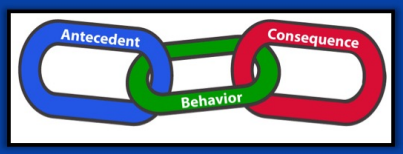
Notes:


Instructional Plan
Child's Name:_____
Date:_____
Antecedent
Instructional context: During which activities will the instruction take place?
What do you do or say to elicit the target behavior?
Behavior
Child demonstrates target behavior
Child does NOT demonstrate the target behavior
What additional help (prompts) do you provide?
Consequence
How do you respond when the child demonstrates the target behavior?
Behavior
Child demonstrates the target behavior
Consequence
How do you respond when the child demonstrates the target behavior?
Behavior
Child does NOT demonstrate the target behavior
Feedback
What feedback do you provide to end the trial?
Evaluation
Type of data:
Data Collection Format:

Notes:

Embedded Instruction for Early Learning
Tools for Teachers

Complete Learning Trial Components



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Notes:

Davion's Story

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Notes:

Davion's Story

Miss Lou has just met Davion, a new student who will join her early childhood inclusion class tomorrow. Miss Lou feels apprehensive because she knows Davion's needs will be great and, of course, they will be different from everyone else's needs.

The tiny, 4-year-old boy with thick glasses has lived with his supportive grandparents since he was 2 years old. Davion was born at 24 weeks gestation, spent many months in the NICU, and has undergone multiple surgeries. Home-based early intervention therapy services ended when Davion turned 3. He has gone without an intervention program for the past year, as his grandparents did not yet feel comfortable enrolling him in the school-based program for children over age 3. In addition to delays in general development, Davion has been diagnosed with mild cerebral palsy and a vision impairment.

Due to his vision impairment, Davion has worn glasses since 18 months of age. Davion holds objects close to look at them and seems to need bright lighting. Davion's current vision is 20/200-20/400. His glasses have a high minus (nearsighted) prescription. Objects look smaller through the lenses (all nearsighted prescriptions do this). When he takes his glasses off, his right eye turns in (esotropia); when he puts them on again, his eyes straighten. Davion's eyesight affects him in several ways, including trouble walking up and down stairs, difficulty walking across mixed terrains, trouble finding objects that are not in front of him, not liking the lights turned off, and walking into objects as he approaches them (depth perception problems). Furthermore, Davion has a limited vocabulary. Davion's school psychologist has reported that he does not appear to have the language or play skills required for interactive play, but will attend to what others are doing and manipulate materials himself.

How can Miss Lou meet the needs of the 15 children already in her class and Davion's? Miss Lou's current class of 15 has seven other children who have IEPs to address special needs. Miss Lou feels comfortable that the group has gotten to a point in which all 15 children are benefitting from her program. As Miss Lou reviews Davion's initial IEP, she feels overwhelmed thinking about how to make sure Davion learns skills that are important for him in the midst of her busy classroom.

Miss Lou knows she will need to work carefully with the vision specialist, therapists, the paraprofessional in her classroom, and Davion's family to address his priority learning targets so that he can take advantage of the learning opportunities in her classroom. To get a head start, Miss Lou has gone to her mentor teacher to get some ideas about how she can provide the systematic learning opportunities that Davion needs within the ongoing routines of her classroom. Miss Lou's mentor has shown her how to write developmentally appropriate; functional and aligned; generative; and observable and measurable priority learning targets and how to use an activity matrix to plan when to provide instructional opportunities across the day. Now she is anxious to begin implementing embedded instruction learning trials with Davion on his priority learning targets.

Davion's Priority Learning Targets

- Davion will initiate play with another child by asking to join in (e.g., Can I play?, My turn) following a teacher model during centers, free play, and outside, at least once a day for five consecutive days.

- Davion will count sets of up to 3 moveable objects (e.g., blocks, toy cars, crackers) when asked by an adult, during centers, free play, and snack for 80% of the opportunities across a day for two consecutive days.

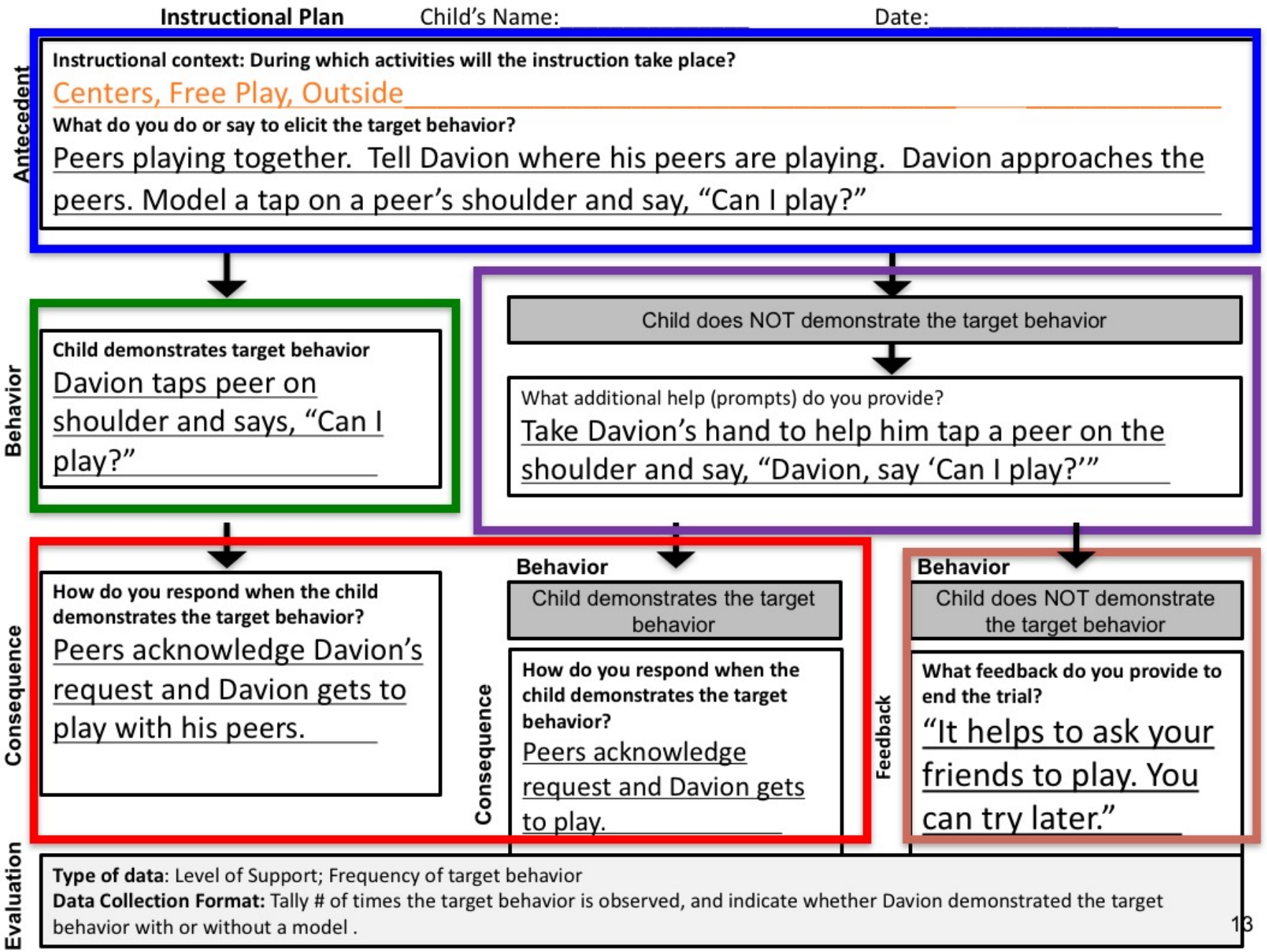
- Davion will use 3-word phrases when making requests (e.g., I want___, my turn please) to an adult or peer during free play, snack, and class activity time when asked by an adult ("What do you want?") at least four times a day across two activities for four consecutive days.

- Davion will walk up and down stairs with decreasing adult assistance (i.e., from holding onto an adult and the hand railing to independently using the hand railing) during transitions between classroom activities and around the school building on four opportunities provided each day for five consecutive days.

Classroom Activity Matrix

(Davion and Classmates)

	Davion	Sam	Cindy
Arrival		**Point to name—2**	**Greet peers—2**
Circle		**Point to name—1**	
Centers	**Initiate play by asking to join—2** **Count 3 objects—2**	**Point to shapes—5** **Use 1 word to request more—5**	**Use both hands to pour—2** **Use 2 words to request preferred item—5**
Outside	**Initiate play by asking to join –2**	**Jump over small objects—5**	**Greet peers—2**
Snack	**Use 3-word phrases for requests—3** **Count 3 objects—2**		**Use both hands to pour—5**
Class Activity	**Use 3-word phrases for requests—3**	**Point to name—2** **Point to shapes—3**	**Follow 1-step directions—3**
Free Play	**Initiate play by asking to join —2** **Count 3 objects—2** **Use 3-word phrases for request—3**	**Use 1 word to request more—5**	**Use 2 words to request preferred item—5**
Departure		**Jump over small objects—2**	**Follow 1-step directions—1**
Transitions	**Walk up and down stairs—6**		**Follow 1-step directions—2**


Instructional Plan
Child's Name:
Date:
Antecedent
Instructional context: During which activities will the instruction take place?
Centers, Free Play, Outside
What do you do or say to elicit the target behavior?
Peers playing together. Tell Davion where his peers are playing. Davion approaches the peers. Model a tap on a peer's shoulder and say, "Can I play?"
Behavior
Child demonstrates target behavior
Davion taps peer on shoulder and says, "Can I play?"
Child does NOT demonstrate the target behavior
What additional help (prompts) do you provide?
Take Davion's hand to help him tap a peer on the shoulder and say, "Davion, say 'Can I play?'"
Consequence
How do you respond when the child demonstrates the target behavior?
Peers acknowledge Davion's request and Davion gets to play with his peers.
Behavior
Child demonstrates the target behavior
Consequence
How do you respond when the child demonstrates the target behavior?
Peers acknowledge request and Davion gets to play.
Behavior
Child does NOT demonstrate the target behavior
Feedback
What feedback do you provide to end the trial?
"It helps to ask your friends to play. You can try later."
Evaluation
Type of data: Level of Support; Frequency of target behavior
Data Collection Format: Tally # of times the target behavior is observed, and indicate whether Davion demonstrated the target behavior with or without a model .

Davion's Instructional Plan

Davion will initiate play with another child by asking to join in (e.g., Can I play?, My turn) following a teacher model during centers, free play, and outside at least six times a day for five consecutive days.

What is the target behavior?

What activities were selected for embedding trials on this target?

Why do we think these activities were selected?

What would we do or say to elicit this behavior?

If the child does NOT demonstrate the target behavior, what additional help (prompts) could we provide?

How would we respond when the behavior occurs?

If, after additional help, the child still does NOT demonstrate the target behavior, what feedback could we provide to end the trial?

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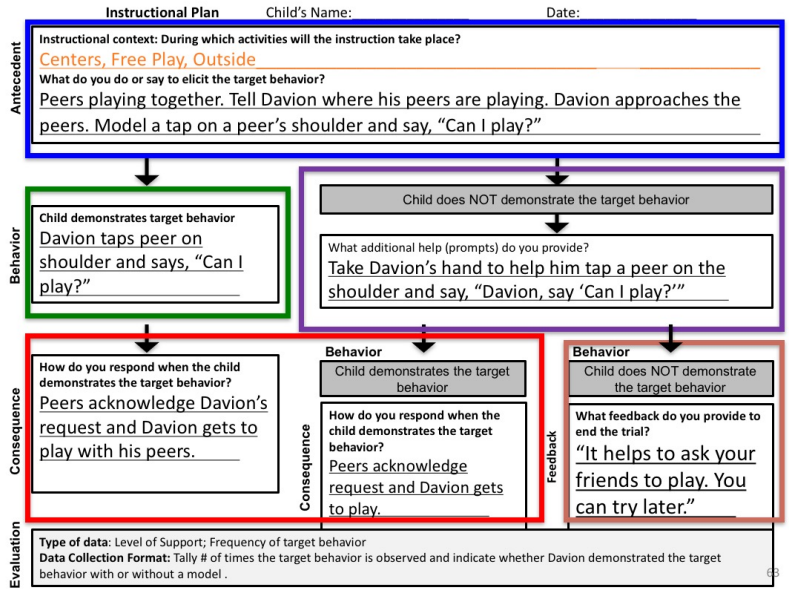
Notes:



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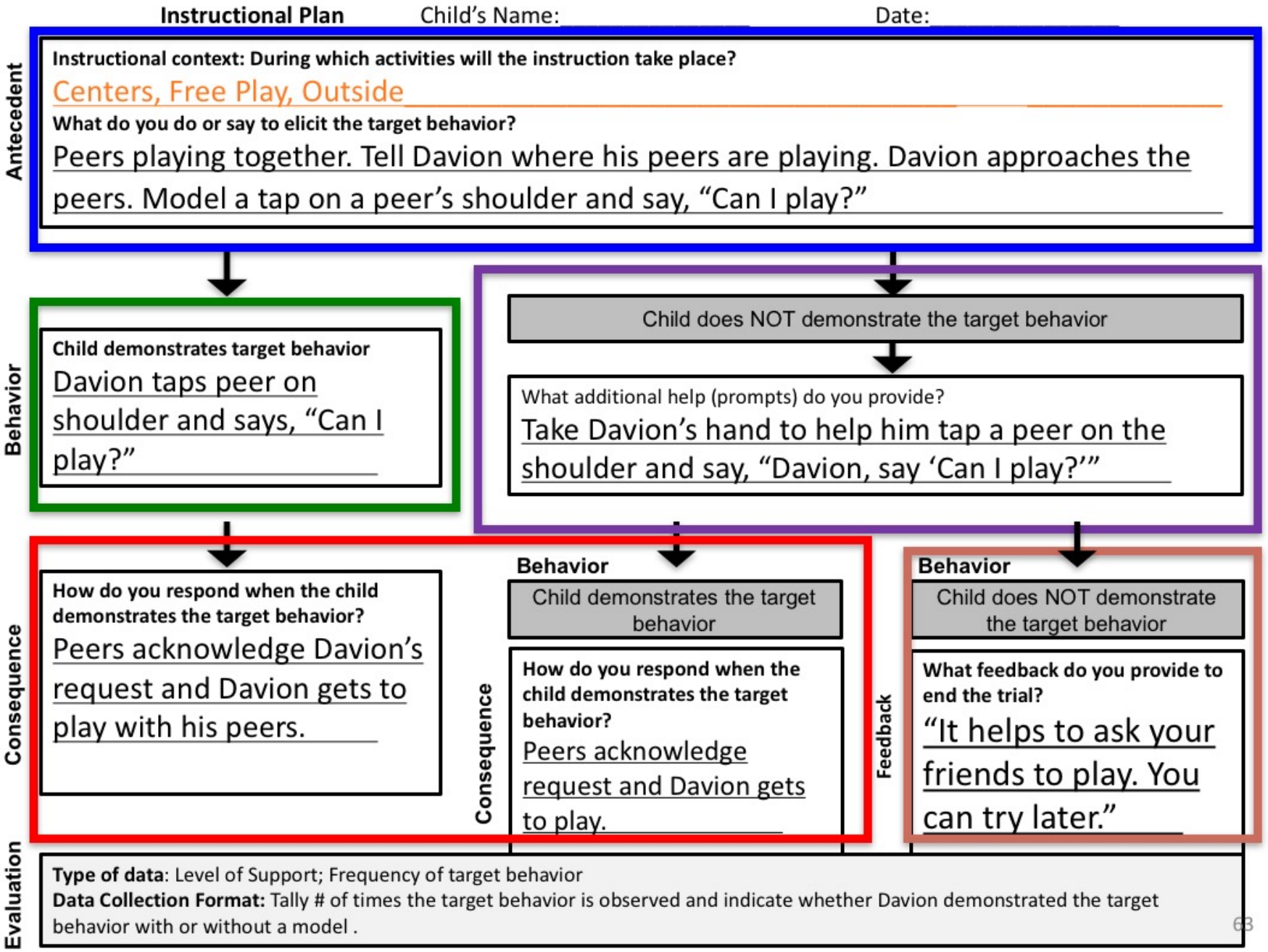
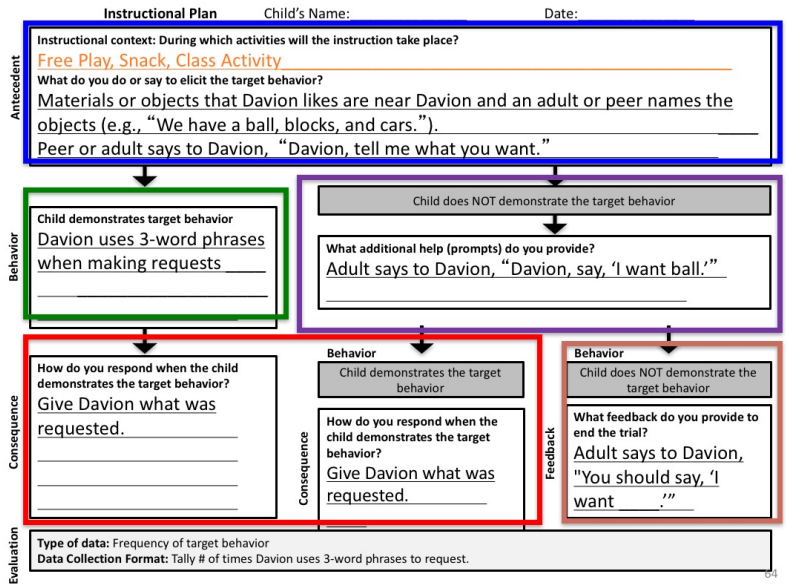

Instructional Plan
Child's Name:
Date:
Antecedent
Instructional context: During which activities will the instruction take place?
Centers, Free Play, Outside
What do you do or say to elicit the target behavior?
Peers playing together. Tell Davion where his peers are playing. Davion approaches the peers. Model a tap on a peer's shoulder and say, "Can I play?"
Behavior
Child demonstrates target behavior
Davion taps peer on shoulder and says, "Can I play?"
Child does NOT demonstrate the target behavior
What additional help (prompts) do you provide?
Take Davion's hand to help him tap a peer on the shoulder and say, "Davion, say 'Can I play?'"
Consequence
How do you respond when the child demonstrates the target behavior?
Peers acknowledge Davion's request and Davion gets to play with his peers.
Behavior
Child demonstrates the target behavior
Consequence
How do you respond when the child demonstrates the target behavior?
Peers acknowledge request and Davion gets to play.
Behavior
Child does NOT demonstrate the target behavior
Feedback
What feedback do you provide to end the trial?
"It helps to ask your friends to play. You can try later."
Evaluation
Type of data: Level of Support; Frequency of target behavior
Data Collection Format: Tally # of times the target behavior is observed and indicate whether Davion demonstrated the target behavior with or without a model .
63


Instructional Plan
Child's Name:
Date:
Antecedent
Instructional context: During which activities will the instruction take place?
Free Play, Snack, Class Activity
What do you do or say to elicit the target behavior?
Materials or objects that Davion likes are near Davion and an adult or peer names the objects (e.g., "We have a ball, blocks, and cars.").
Peer or adult says to Davion, "Davion, tell me what you want."
Behavior
Child demonstrates target behavior
Davion uses 3-word phrases when making requests
Child does NOT demonstrate the target behavior
What additional help (prompts) do you provide?
Adult says to Davion, "Davion, say, 'I want ball.'"
Consequence
How do you respond when the child demonstrates the target behavior?
Give Davion what was requested.
Behavior
Child demonstrates the target behavior
Consequence
How do you respond when the child demonstrates the target behavior?
Give Davion what was requested.
Feedback
Behavior
Child does NOT demonstrate the target behavior
What feedback do you provide to end the trial?
Adult says to Davion, "You should say, 'I want ____.'"
Evaluation
Type of data: Frequency of target behavior
Data Collection Format: Tally # of times Davion uses 3-word phrases to request.
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Notes:


Embedded Instruction for Early Learning
Tools for Teachers
Let's Look at Each Component
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Notes:

Embedded Instruction for Early Learning
Tools for Teachers

What is the target behavior?

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Notes:

Let's Look at Some Examples

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Notes:

A Priority Learning Target for Davion

- Davion will count sets of up to 3 moveable objects (e.g., blocks, toy cars, crackers) when asked by an adult during centers, free play, and snack for 80% of the opportunities across a day for two consecutive days.

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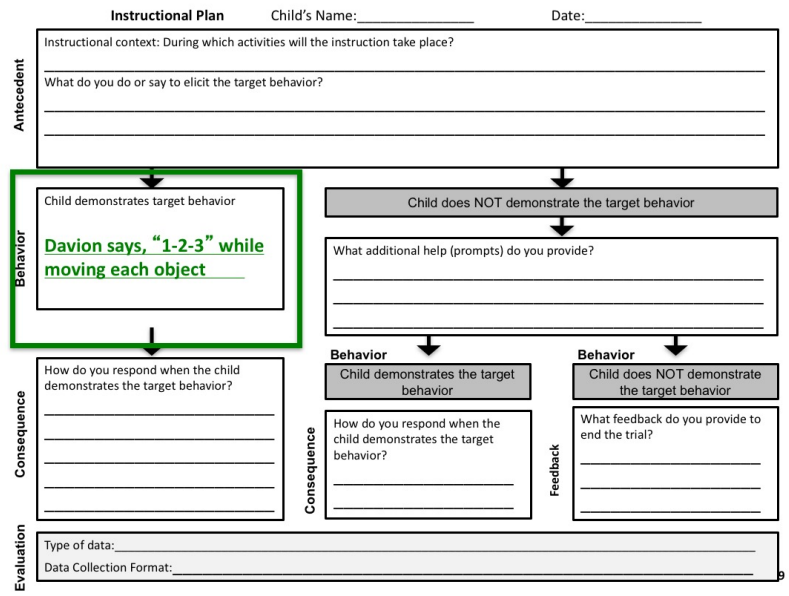
Notes:



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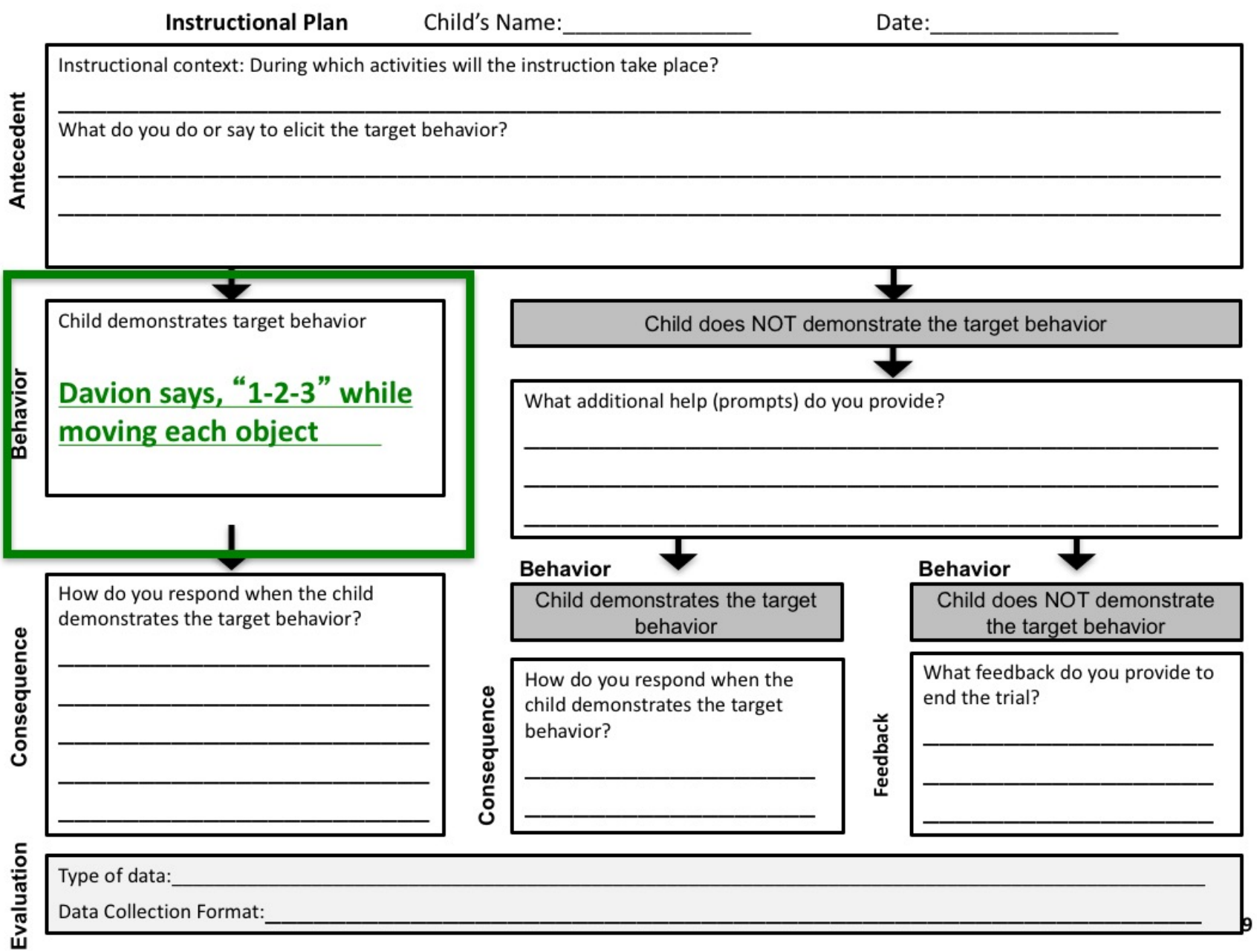
Instructional Plan
Child's Name:_____
Date:_____
Antecedent
Instructional context: During which activities will the instruction take place?
What do you do or say to elicit the target behavior?
Behavior
Child demonstrates target behavior
Davion says, "1-2-3" while moving each object
Child does NOT demonstrate the target behavior
What additional help (prompts) do you provide?
Consequence
How do you respond when the child demonstrates the target behavior?
Behavior
Child demonstrates the target behavior
Consequence
How do you respond when the child demonstrates the target behavior?
Behavior
Child does NOT demonstrate the target behavior
Feedback
What feedback do you provide to end the trial?
Evaluation
Type of data:
Data Collection Format:

Embedded Instruction for Early Learning
Tools for Teachers

What do you say or do to elicit the target behavior?

Antecedents

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Notes:

What are Antecedents?

Antecedents are objects, events, or behaviors that set the occasion for the occurrence of the targeted behavior.

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Notes:

Types of Antecedents

- Materials, objects, or people
- A situation or event
- A direction or question
  - Verbal (comments, directives, or questions)
  - Non-verbal (communicative gestures or pictures)
- A previous behavior in a chain or steps in a routine

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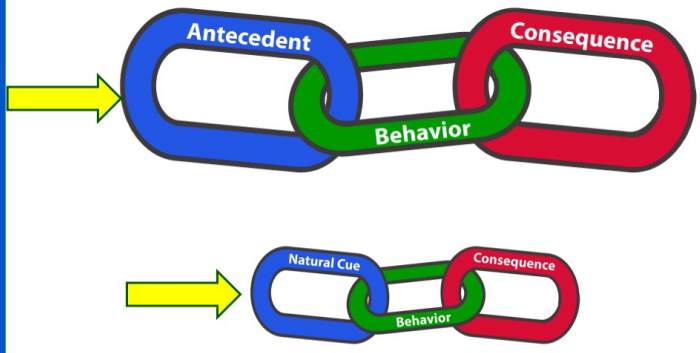
Notes:

Natural Cue as an Antecedent



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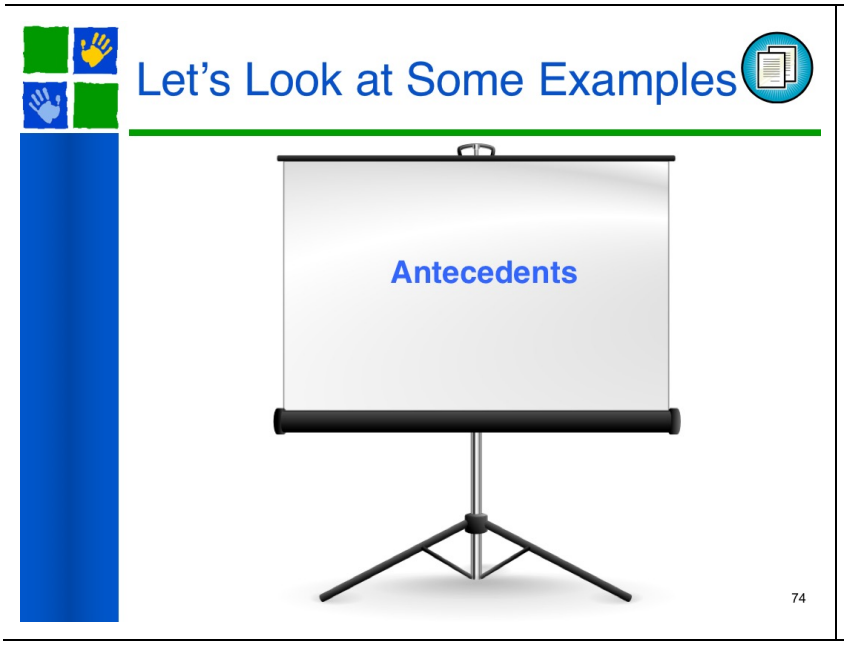


Notes:

Notes:

Types of Antecedents

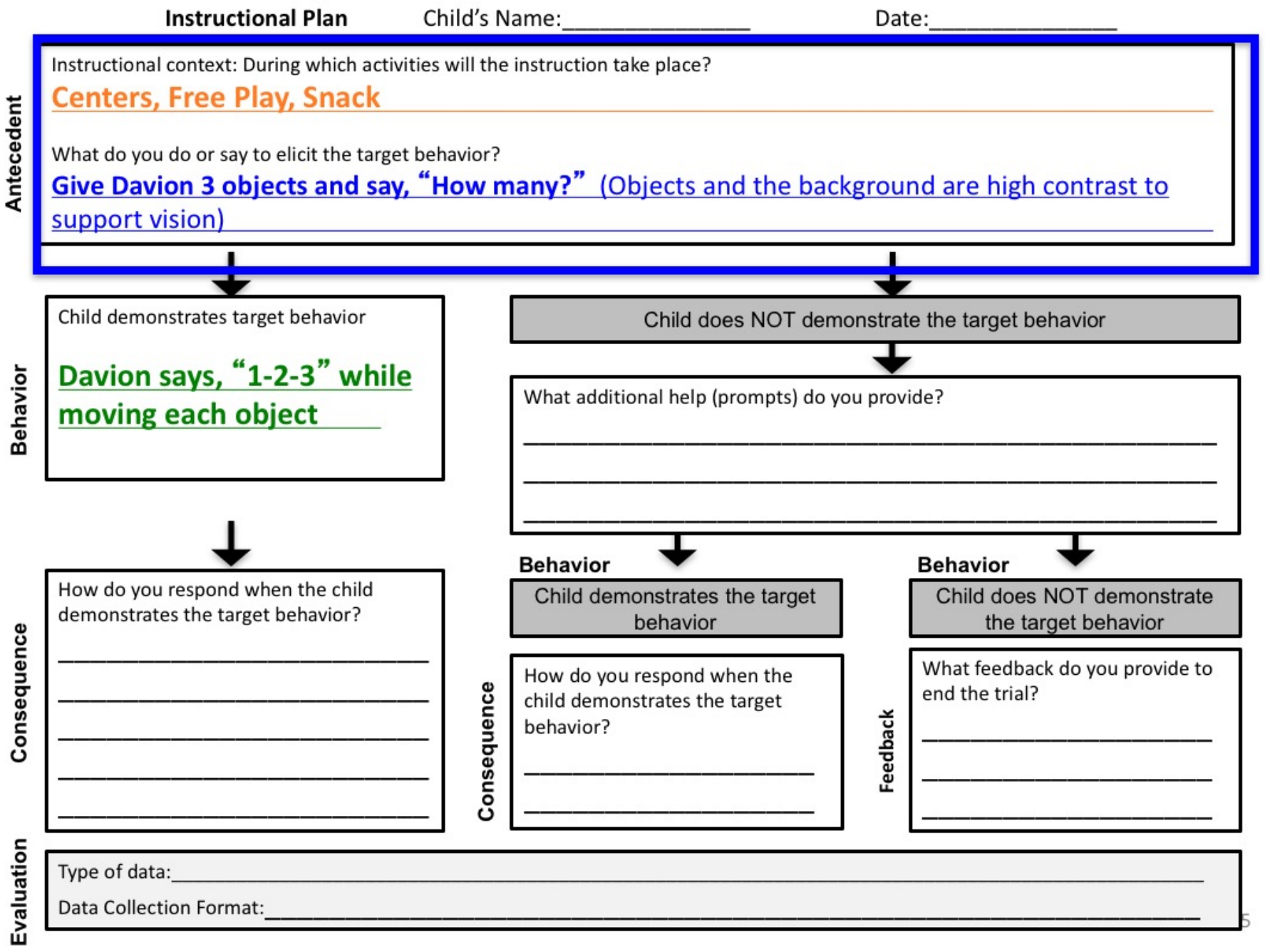
Materials, objects, or people- preferred toys, games, food, or other objects that the child is interested in obtaining or communicating about OR people (adults or peers)

A situation or event- situations in which something unexpected or unusual has occurred OR typical events, including familiar social situations or classroom routines

A direction or question- verbal comments, directives, requests, or questions from either adults or other children OR gestural directions or pictures that cue the child

A previous behavior in a chain- one step in a well-known chain (e.g., washing hands) or routine (e.g., morning arrival) that cues the next step and thus serves as an antecedent

Clip	**Antecedent** *What cued the behavior?*	**Behavior** *What did the child do or say?*	**Type of Antecedent** *Check ALL of the antecedents observed.*
1			____ Materials, objects, or people ____ A situation or event ____ A direction or question ____ A previous behavior in a chain
2			____ Materials, objects, or people ____ A situation or event ____ A direction or question ____ A previous behavior in a chain


Instructional Plan
Child's Name:_____
Date:_____
Antecedent
Instructional context: During which activities will the instruction take place?
Centers, Free Play, Snack
What do you do or say to elicit the target behavior?
Give Davion 3 objects and say, "How many?" (Objects and the background are high contrast to support vision)
Behavior
Child demonstrates target behavior
Davion says, "1-2-3" while moving each object
Child does NOT demonstrate the target behavior
What additional help (prompts) do you provide?
Consequence
How do you respond when the child demonstrates the target behavior?
Behavior
Child demonstrates the target behavior
Consequence
How do you respond when the child demonstrates the target behavior?
Behavior
Child does NOT demonstrate the target behavior
Feedback
What feedback do you provide to end the trial?
Evaluation
Type of data:_____
Data Collection Format:_____

Embedded Instruction for Early Learning
Tools for Teachers

Prompts
In addition to natural cues

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Notes:

What is a prompt?

A **prompt** is something done <u>in addition</u> to the natural cue to increase the likelihood that the child will produce the target behavior.

Prompts help to elicit a behavior.

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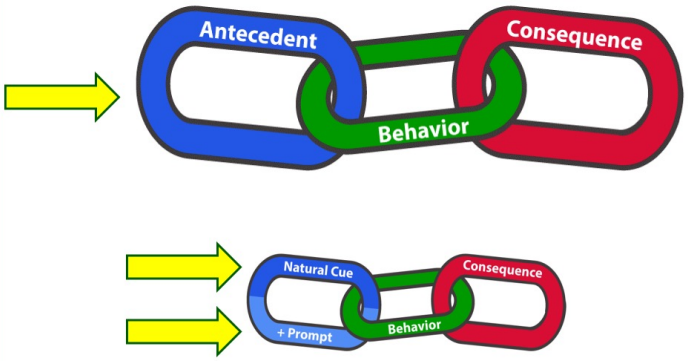
Notes:

Antecedent that Includes a Prompt in Addition to a Natural Cue



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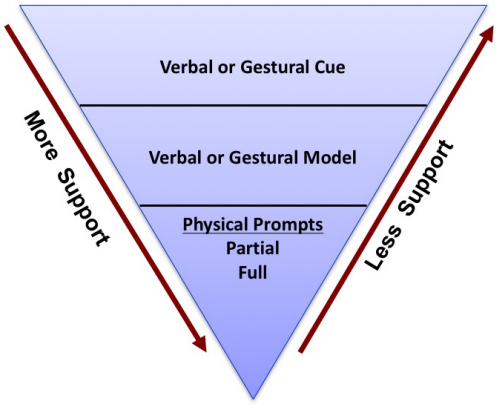
Notes:

Levels of Prompts



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Notes:

Antecedent with a Prompt

Antecedent: Natural Cue, Prompt

Target Behavior Occurs

Consequence

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Notes:

Let's Look at Some Examples

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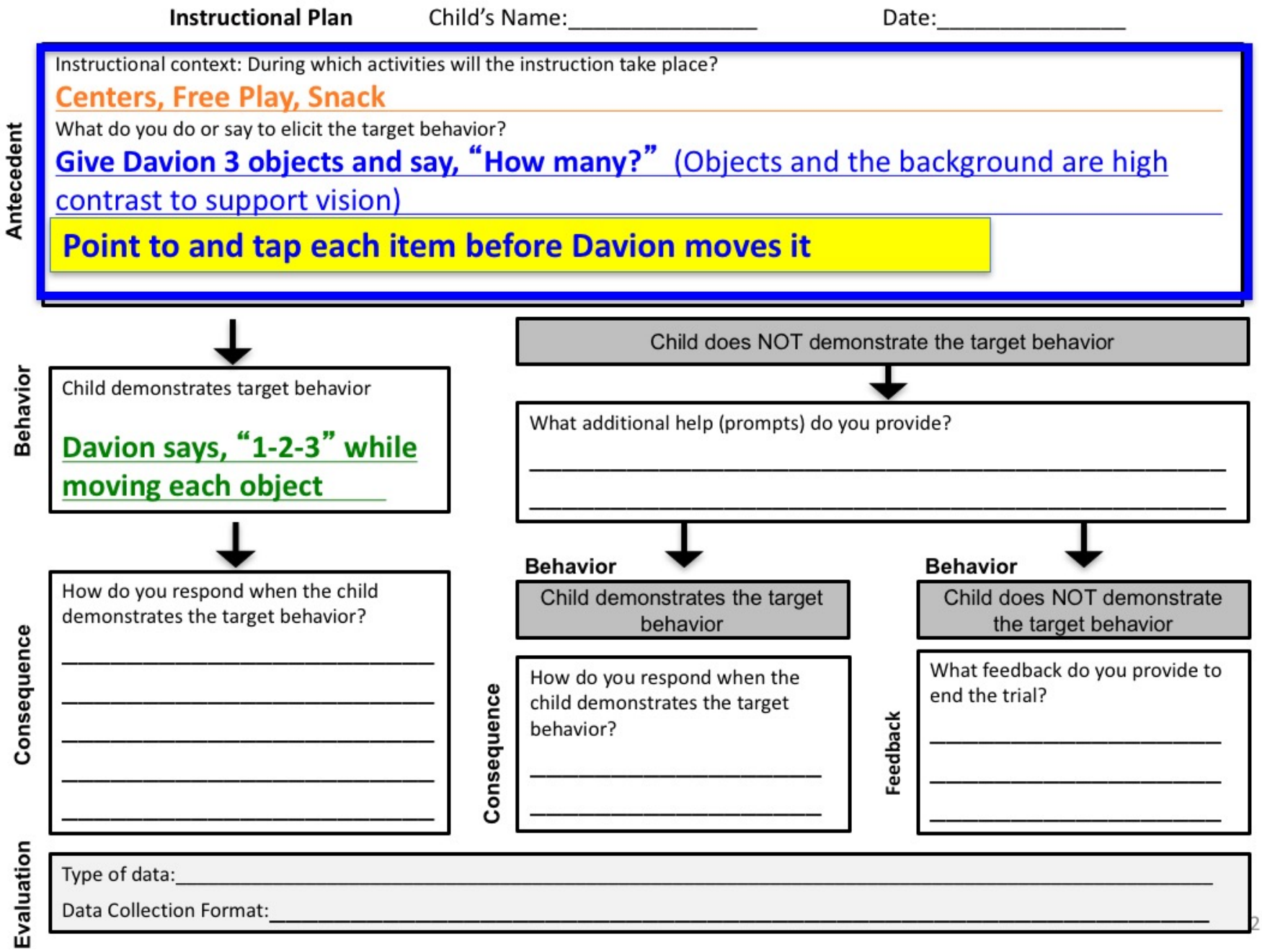
Notes:

Antecedents:
Pairing the Natural Cue with a Prompt

Clip	**Natural Cue** *What "cues" the child that the target behavior is appropriate or expected?*	**Prompt** *What did the teacher say or do in addition to the natural cue?*	**Behavior** *What did the child say or do?*
1			
2			
3			


Instructional Plan
Child's Name:_____
Date:_____
Antecedent
Instructional context: During which activities will the instruction take place?
Centers, Free Play, Snack
What do you do or say to elicit the target behavior?
Give Davion 3 objects and say, "How many?" (Objects and the background are high contrast to support vision)
Point to and tap each item before Davion moves it
Behavior
Child demonstrates target behavior
Davion says, "1-2-3" while moving each object
Child does NOT demonstrate the target behavior
What additional help (prompts) do you provide?
Consequence
How do you respond when the child demonstrates the target behavior?
Behavior
Child demonstrates the target behavior
Consequence
How do you respond when the child demonstrates the target behavior?
Behavior
Child does NOT demonstrate the target behavior
Feedback
What feedback do you provide to end the trial?
Evaluation
Type of data:
Data Collection Format:

Remember…

- Antecedents ***always*** include natural cues to elicit the target behavior.
- Antecedents ***might*** include a natural cue PLUS a prompt(s) when the behavior is new or challenging for a child.
- Prompts should be selected based on the characteristics of the child and the characteristics of the priority learning target behavior.
- Prompts are ***not*** a necessary part of every antecedent.
- Prompts should be faded out as soon as possible.

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Notes:

Embedded Instruction for Early Learning
Tools for Teachers

The Importance of Fading Prompts

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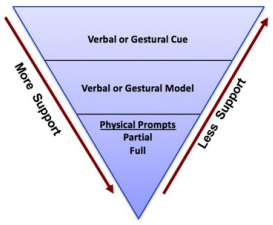
Notes:

Fading Prompts

Remember to "fade" any prompts that you provide by gradually decreasing prompts over time until the behavior occurs independently *in response to the natural cue (A).*



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Notes:

Fading Prompts for Davion

A = Adult says, "Time to go downstairs for lunch."

Adult **holds Davion's hand**, actively steadying him as he descends, cueing him to slide his foot to find the step's edge.

B = Davion walks down the stairs.

C = Davion enters the lunchroom to eat.

A = Adult says, "Time to go downstairs for lunch."

Adult **holds the other end of a short dowel** with Davion as he descends, cueing him to find each step's edge.

B = Davion walks down the stairs.

C = Davion enters the lunchroom to eat.

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Notes:

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Tools for Teachers

Additional Help: What do you do if the child does NOT demonstrate the target behavior?

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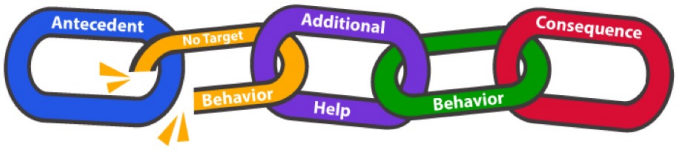
Notes:

A-B-C with Additional Help



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Notes:

Providing Additional Help (Prompts)

If the child does not demonstrate the target behavior, you might:

- **Repeat** the prompt (if a prompt was provided as part of the antecedent)
- Provide a different or **more supportive prompt** that will help the child perform the target behavior
- Provide a prompt in which you guide the child through the target behavior (**physical prompt**)

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Notes:

Let's Look at Some Examples

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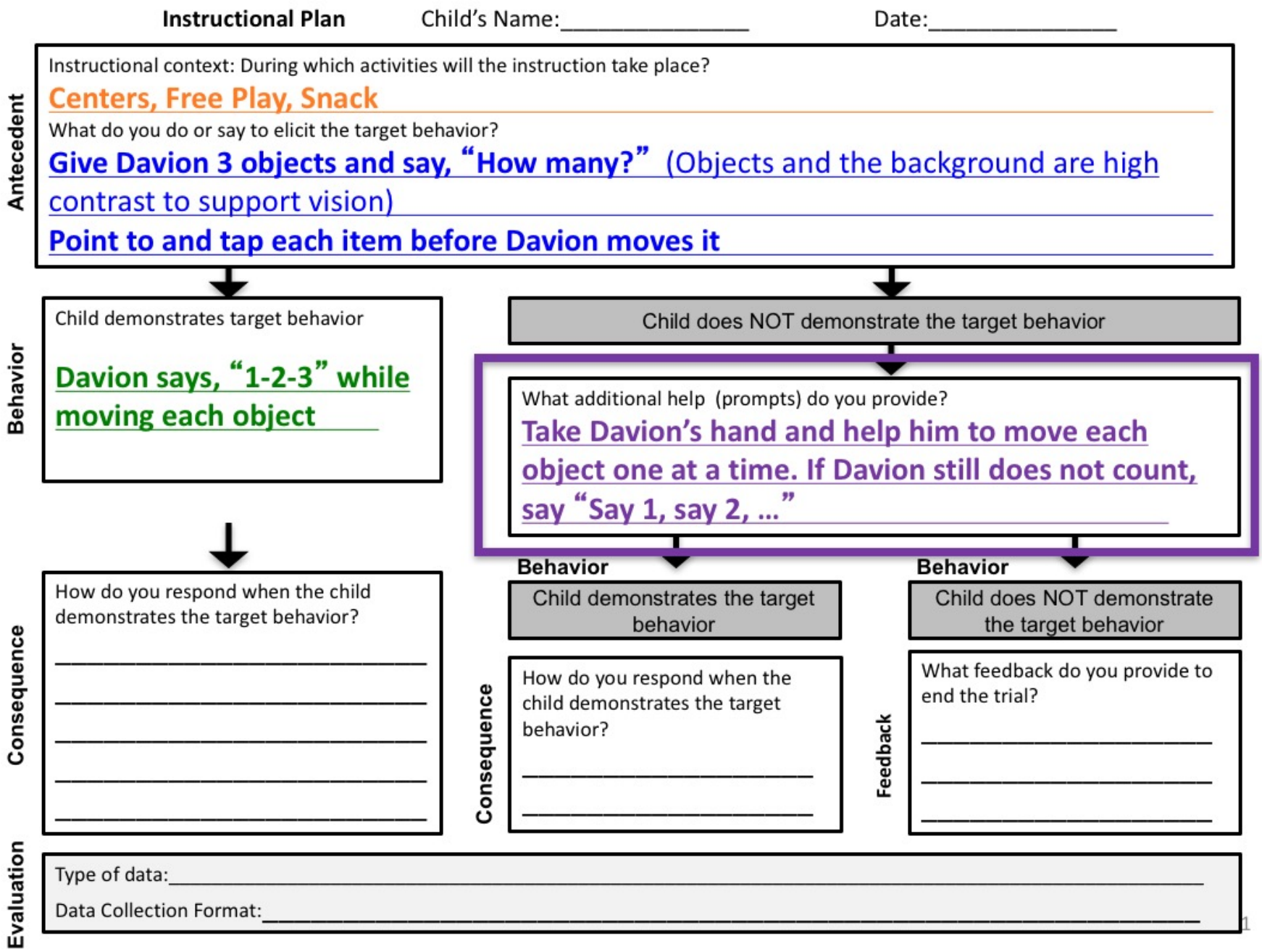
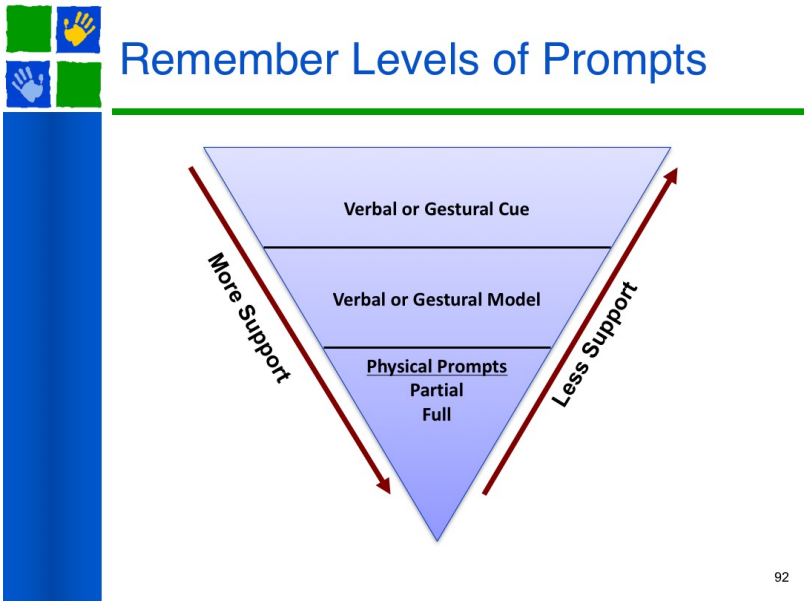
Notes:

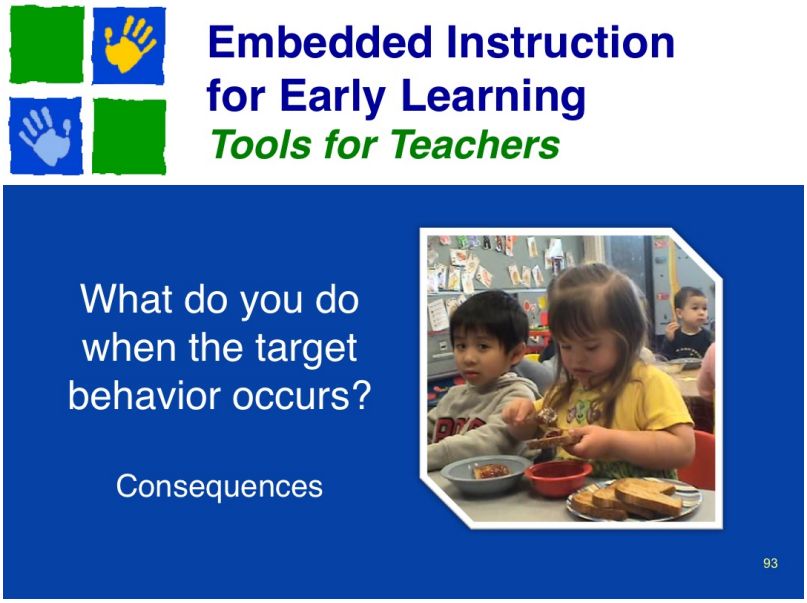
Additional Help (Prompts)

Clip	**Antecedent** *[Natural Cue(s) or Natural Cue(s) Plus Prompt(s)]*	**Behavior** *What did the child say or do?*	**Additional Help** *What you observed the teacher say or do, if the child did not perform the target behavior*
1	**Trial 1:** Book Reading "Point to the key."	**Trial 1:**	**Trial 1:**
2a	**Trial 1:** Cookie Cutters "How many cookie cutters do we have?"	**Trial 1:**	**Trial 1:**
2b	**Trial 2:** Play-Doh® word mats "Do you know what sound T makes?"	**Trial 2:**	**Trial 2:**


Instructional Plan
Child's Name:_____
Date:_____
Antecedent
Instructional context: During which activities will the instruction take place?
Centers, Free Play, Snack
What do you do or say to elicit the target behavior?
Give Davion 3 objects and say, "How many?" (Objects and the background are high contrast to support vision)
Point to and tap each item before Davion moves it
Behavior
Child demonstrates target behavior
Davion says, "1-2-3" while moving each object
Child does NOT demonstrate the target behavior
What additional help (prompts) do you provide?
Take Davion's hand and help him to move each object one at a time. If Davion still does not count, say "Say 1, say 2, …"
Consequence
How do you respond when the child demonstrates the target behavior?
Behavior
Child demonstrates the target behavior
Consequence
How do you respond when the child demonstrates the target behavior?
Behavior
Child does NOT demonstrate the target behavior
Feedback
What feedback do you provide to end the trial?
Evaluation
Type of data:
Data Collection Format:


Remember Levels of Prompts
Verbal or Gestural Cue
Verbal or Gestural Model
Physical Prompts
Partial
Full
More Support
Less Support
92

Notes:


Embedded Instruction
for Early Learning
Tools for Teachers
What do you do when the target behavior occurs?
Consequences
93

Notes:

A Consequence Ends a Complete Learning Trial

94

Notes:

What are Positive Consequences?

A positive consequence is something that is presented in the child's environment *immediately* following his/her behavior that makes it more likely that the child will produce that same behavior again in the presence of the same antecedent.



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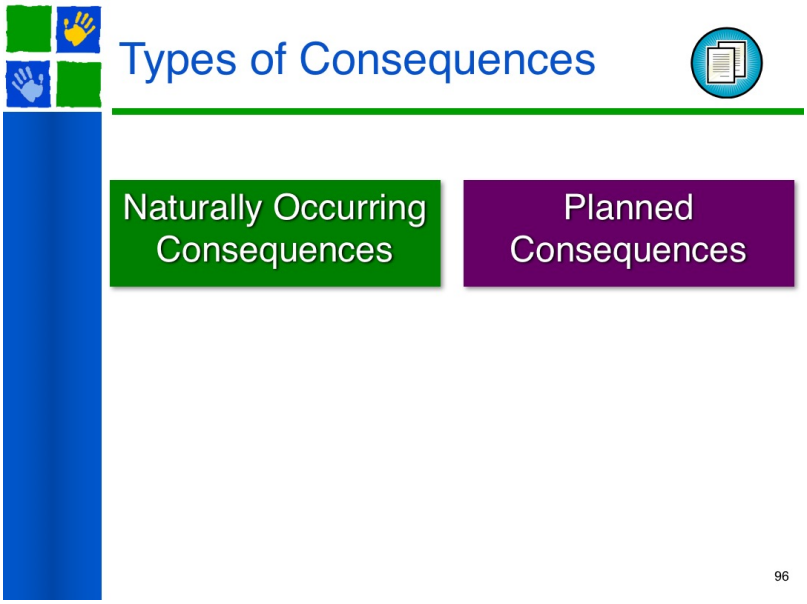
Notes:


Types of Consequences
Naturally Occurring Consequences
Planned Consequences
96

Notes:

Notes:

Positive Consequences

A **positive consequence** is something that is presented in the child's environment *immediately* following his/her behavior. A positive consequence makes it more likely that the child will produce that same behavior again when the antecedent is presented.

Positive consequences can be **naturally occurring** or **planned**. Consequences should be selected based on the preferences of each child.

Naturally occurring consequences are things that typically happen in naturally occurring routines and activities in response to a particular behavior. Below are four types of naturally occurring consequences. ○ Access to preferred materials, activities, or people ○ Continued social interaction ○ Acknowledgement ○ Understanding, learning, or mastering	**Planned consequences** are arranged and delivered following a desired behavior. Arranged consequences may be less effective than natural consequences, but they are sometimes necessary to motivate children when a natural consequence is not available or *not yet* motivating to the child. **It is important to fade planned consequences.** ○ Token, food, preferred object or activity ○ Feedback (descriptive praise from adults or peers)

Read each of the examples below, mark it with an "**N" for naturally occurring consequence or a "P" for planned consequence.**

1. Tina entered the art center and selected painting at the easel. The paint cups did not have brushes. Tina said "I paint," and the teacher gave her a brush.

2. Kevin tried walking across the balance beam three times and fell half-way across each time. Finn said, "Hold my hand." With Finn's help, Kevin successfully walked across the beam. When he made it across, Kevin said, "I did it!"

3. Ben goes potty on the toilet. The teacher says, "Good job using the potty! Here is your skittle!"

4. Yerelyn successfully pours more milk for Peter. Peter says, "Thank you!".

5. Nilah pushes the car down the ramp. Jacob picks the car up and gives it back to Nilah. She pushes the car down the ramp again. Jacob and Nilah repeat this interaction 4 more times.

6. Simon goes to the block center to play, but it is full. He locates his name on the board for a turn and puts it on 'my turn next'. The teacher says, "Simon, I like the way you found your name. You will have a turn in blocks soon!"

Naturally Occurring Consequences

- Access to preferred toys, materials, activities, and people
- Continued social interaction
- Acknowledgement
- Understanding, learning, or mastering (e.g., *I'm doing it!*)

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Notes:

Planned Consequences

- Token, food, preferred object, or activity
- Feedback
  - Praise from a peer or adult
  - Descriptive feedback
- It is important to fade planned consequences!

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Notes:

Positive Consequences

- Consider
  - Naturally occurring or planned
  - How frequently to use consequences
- Select consequences that are
  - Meaningful to the child
  - Appropriate for the characteristics of the child, target behavior, and activity

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Notes:

Let's Look at Some Examples

100

Notes:

Positive Consequences Video

Clip	**Antecedent** *[Natural Cue(s) or Natural Cue(s) Plus Prompt(s)]*	**Target Behavior** *What did the child say or do?*	**Consequence** *What did you observe <u>immediately</u> after the child demonstrated the target behavior?*
1	**Natural Cue:** Swing stopped **Prompts:** Expectant look Teacher says, "Hey, what should we do?"		**Naturally Occurring:** **Planned:**
2	**Natural Cue:** Swing stopped **Prompt:** Expectant look		**Naturally Occurring:** **Planned:**

Instructional Plan Child's Name:_____ Date:_____

Antecedent

Instructional context: During which activities will the instruction take place?

Centers, Free Play, Snack

What do you do or say to elicit the target behavior?

Give Davion 3 objects and say, "How many?" (Objects and the background are high contrast to support vision)

Point to and tap each item before Davion moves it

Child does NOT demonstrate the target behavior

Behavior

Child demonstrates target behavior

Davion says, "1-2-3" while moving each object

What additional help (prompts) do you provide?

Take Davion's hand and help him point to each object one at a time. If Davion still does not count, say "say 1, say 2, …"

Behavior

Child demonstrates the target behavior

Behavior

Child does NOT demonstrate the target behavior

Consequence

How do you respond when the child demonstrates the target behavior?

Say, "Great job, you counted three objects, 1, 2, 3," (point to each again).

Consequence

How do you respond when the child demonstrates the target behavior?

Say, "Great job, you counted three objects, 1, 2, 3," (point to each again).

Feedback

What feedback do you provide to end the trial?

_____

_____

_____

Evaluation

Type of data:_____

Data Collection Format:_____

Embedded Instruction for Early Learning
Tools for Teachers

Ending the Trial if the Target Behavior Does Not Occur

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Notes:

Three Possibilities

1) Learning trial is **complete**
2) Learning trial is **incomplete** because the child did not demonstrate the behavior or the teacher did not provide a consequence
3) Learning trial implemented **correctly** by teacher, but child behavior did not occur

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Notes:

Possibility 1: Complete

1) Target behavior occurs (with or without additional help) and a consequence is provided→ **learning trial is complete**

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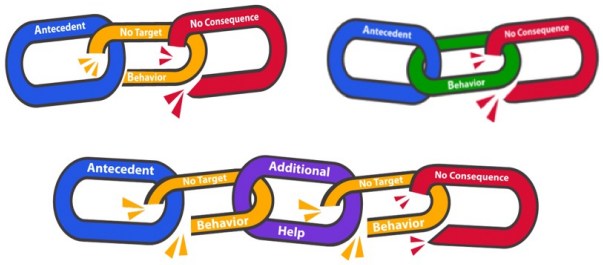
Notes:

Possibility 2: Incomplete

2) The child did not demonstrate the behavior even with additional help or the teacher did not provide a consequence → **learning trial is incomplete**



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Notes:

Possibility 3: Correct

3) Target behavior does not occur – even with additional help (prompts) → **learning trial implemented correctly by teacher, but child behavior did not occur**

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Notes:

Learning Trial in Which the Target Behavior Does NOT Occur

- If the child does **not** perform the target behavior even with additional help
- The adult decides to end the trial
- The trial should end with **feedback**

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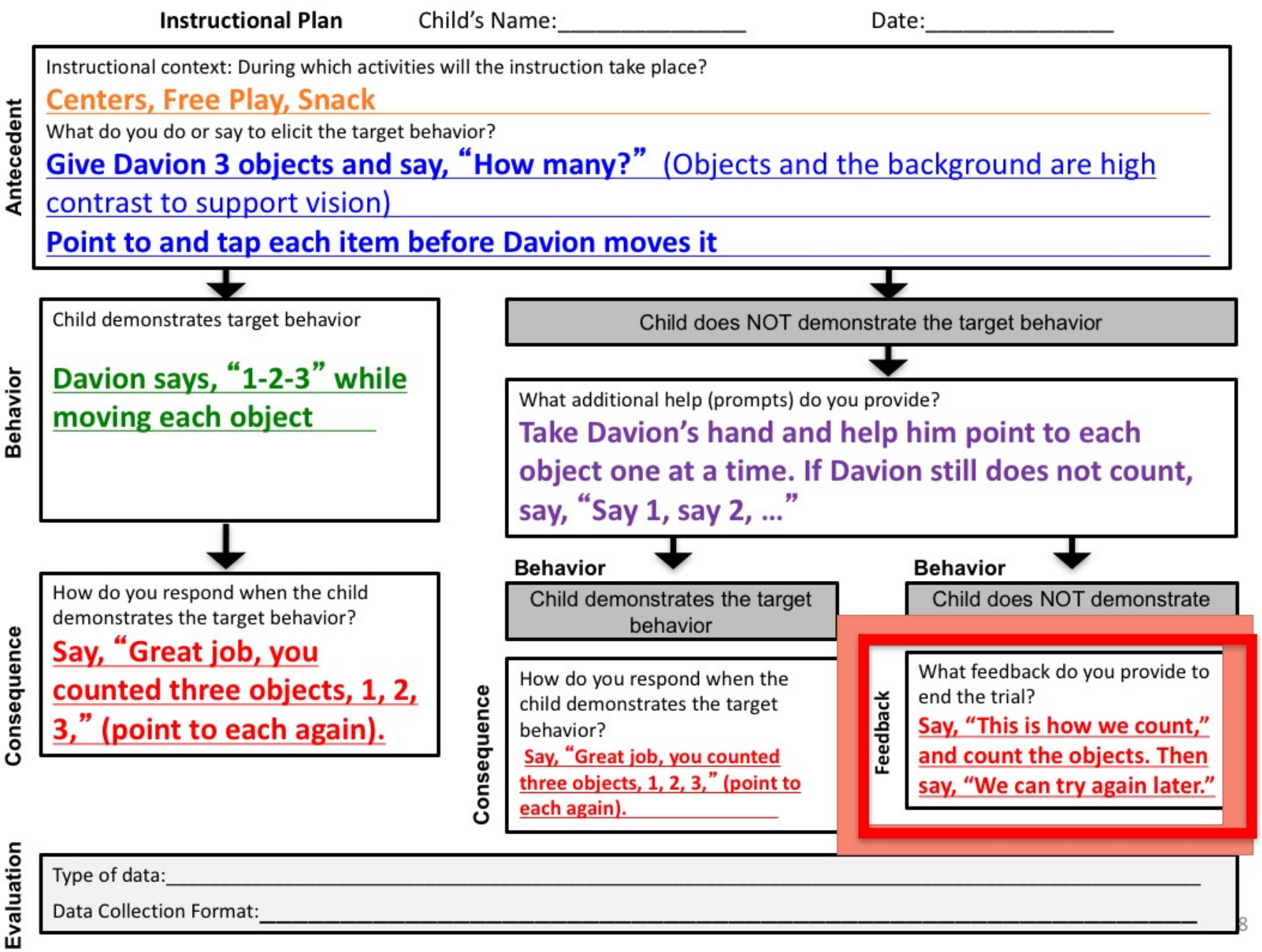
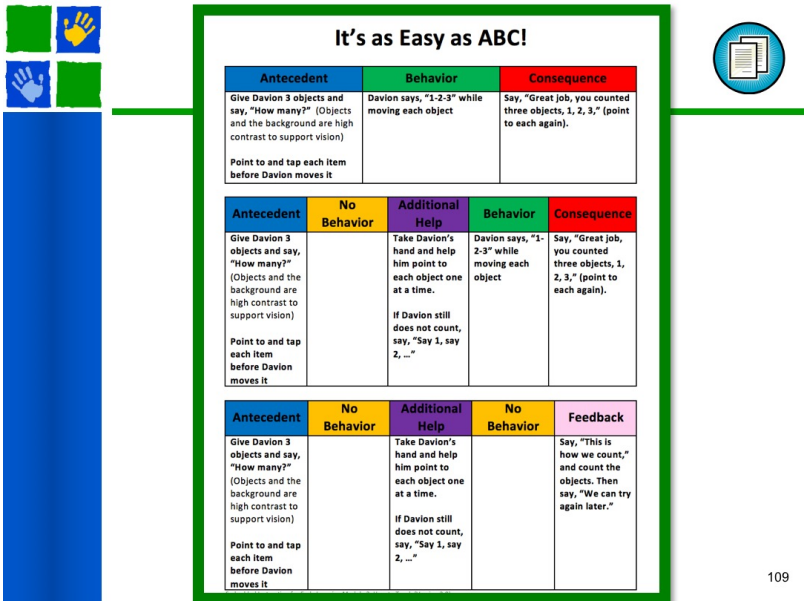
Notes:


Instructional Plan
Child's Name:_____
Date:_____
Antecedent
Instructional context: During which activities will the instruction take place?
Centers, Free Play, Snack
What do you do or say to elicit the target behavior?
Give Davion 3 objects and say, "How many?" (Objects and the background are high contrast to support vision)
Point to and tap each item before Davion moves it
Behavior
Child demonstrates target behavior
Davion says, "1-2-3" while moving each object
Consequence
How do you respond when the child demonstrates the target behavior?
Say, "Great job, you counted three objects, 1, 2, 3," (point to each again).
Child does NOT demonstrate the target behavior
What additional help (prompts) do you provide?
Take Davion's hand and help him point to each object one at a time. If Davion still does not count, say, "Say 1, say 2, …"
Behavior
Child demonstrates the target behavior
Consequence
How do you respond when the child demonstrates the target behavior?
Say, "Great job, you counted three objects, 1, 2, 3," (point to each again).
Behavior
Child does NOT demonstrate
Feedback
What feedback do you provide to end the trial?
Say, "This is how we count," and count the objects. Then say, "We can try again later."
Evaluation
Type of data:_____
Data Collection Format:_____


It's as Easy as ABC!
Antecedent
Behavior
Consequence
Give Davion 3 objects and say, "How many?" (Objects and the background are high contrast to support vision)
Point to and tap each item before Davion moves it
Davion says, "1-2-3" while moving each object
Say, "Great job, you counted three objects, 1, 2, 3," (point to each again).
Antecedent
No Behavior
Additional Help
Behavior
Consequence
Give Davion 3 objects and say, "How many?" (Objects and the background are high contrast to support vision)
Point to and tap each item before Davion moves it
Take Davion's hand and help him point to each object one at a time.
If Davion still does not count, say, "Say 1, say 2, …"
Davion says, "1-2-3" while moving each object
Say, "Great job, you counted three objects, 1, 2, 3," (point to each again).
Antecedent
No Behavior
Additional Help
No Behavior
Feedback
Give Davion 3 objects and say, "How many?" (Objects and the background are high contrast to support vision)
Point to and tap each item before Davion moves it
Take Davion's hand and help him point to each object one at a time.
If Davion still does not count, say, "Say 1, say 2, …"
Say, "This is how we count," and count the objects. Then say, "We can try again later."
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Notes:

Notes:

It's as Easy as ABC!

Antecedent	Behavior	Consequence
Give Davion 3 objects and say, "How many?" (Objects and the background are high contrast to support vision) **Point to and tap each item before Davion moves it**	**Davion says, "1-2-3" while moving each object**	**Say, "Great job, you counted three objects, 1, 2, 3," (point to each again).**

Antecedent	No Behavior	Additional Help	Behavior	Consequence
Give Davion 3 objects and say, "How many?" (Objects and the background are high contrast to support vision) **Point to and tap each item before Davion moves it**		**Take Davion's hand and help him point to each object one at a time.** **If Davion still does not count, say, "Say 1, say 2, …"**	**Davion says, "1-2-3" while moving each object**	**Say, "Great job, you counted three objects, 1, 2, 3," (point to each again).**

Antecedent	No Behavior	Additional Help	No Behavior	Feedback
Give Davion 3 objects and say, "How many?" (Objects and the background are high contrast to support vision) **Point to and tap each item before Davion moves it**		**Take Davion's hand and help him point to each object one at a time.** **If Davion still does not count, say, "Say 1, say 2, …"**		**Say, "This is how we count," and count the objects. Then say, "We can try again later."**

Embedded Instruction for Early Learning Module 3: How to Teach (Version 3.0)
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Embedded Instruction for Early Learning
Tools for Teachers

Building Complete Learning Trials for the Children you Teach

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Notes:

Review and Wrap-Up

Today, you have learned how to develop instructional plans to guide the implementation of embedded instruction that includes the following components:

- How to identify the **target behavior**
- What to say or do to elicit the target behavior (**antecedent**)
  - If needed, what prompts will be used to elicit the target behavior
- How to respond when the target behavior occurs (**consequence**)
- What prompts (**additional help**) to provide, if the child does NOT demonstrate the target behavior
- What **feedback** to provide to end the trial, if child still does NOT demonstrate the target behavior

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Notes:

Let's Try It!

- Work on one PLT for the other two children in your classroom
- Develop an instructional plan(s) to support the child to demonstrate the behavior in the activities you selected
- Think about how you will discuss this plan with other members of your team

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Notes:

Before next time…

- Videotape yourself implementing your instructional plan
- Sharing your video will be voluntary, but we believe it is a valuable opportunity for reflection and to gain insight from our Embedded Instruction for Early Learning community
- Learning trials that are not complete can still be used as a learning opportunity

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Notes:

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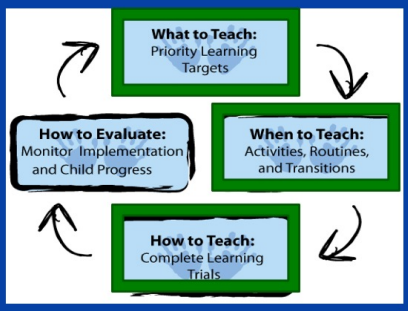
Tools for Teachers

Up next
How to Evaluate



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Notes:

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Tools for Teachers

Thank you!

See you at Module 4
How to Evaluate!

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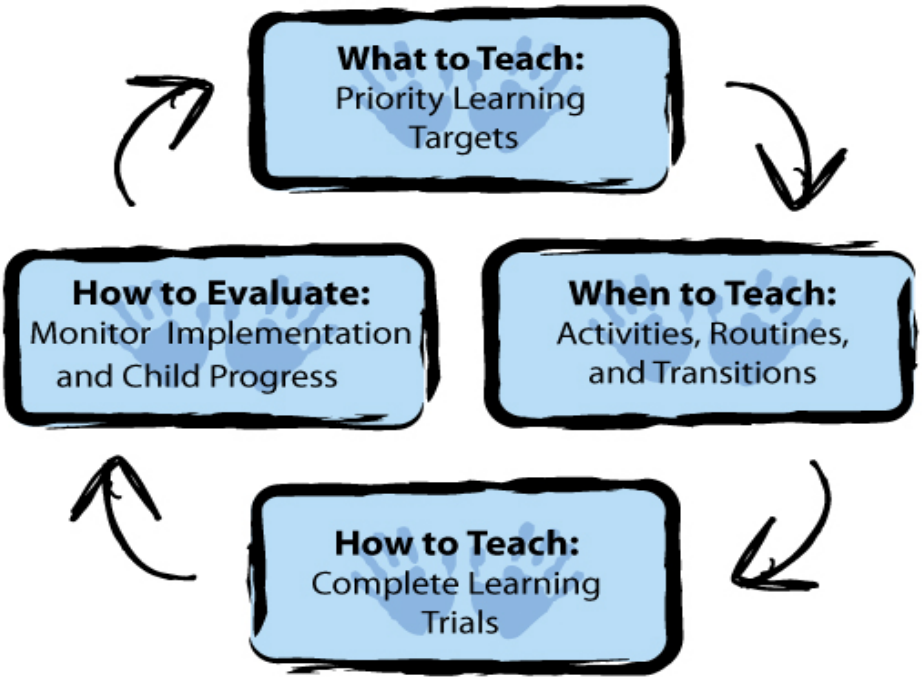
Notes:

Practice Guide

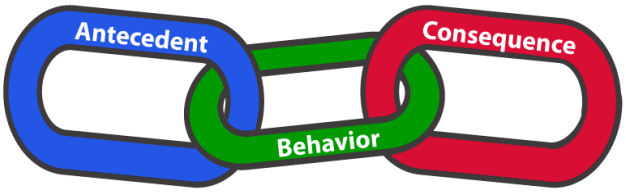
Key Components of Embedded Instruction

Embedded instruction is an approach to instruction that promotes child engagement and learning in everyday activities, routines, and transitions. This is accomplished by identifying *times* and *activities* when *instructional procedures* for teaching a child's priority learning targets are *implemented* in *ongoing [naturally occurring] activities, routines, and transitions*.

Embedded Instruction focuses on:



This guide will focus on 'When to Teach' and 'How to Teach'. The key elements of the When to Teach practices is the use of high-quality activities to provide multiple and meaningful embedded learning opportunities and the development of an activity matrix to plan when and how many learning opportunities to embed within and across activities. The key elements of the How to Teach practices is the use of systematic instructional procedures. Instructional procedures are used to plan for and implement complete learning trials. The most basic complete learning trial has an antecedent, the priority learning target behavior, and a consequence.



This guide will help you develop an activity matrix, plan when and how many learning trials, and identify the instructional procedures and elements of a complete learning trial that can be used as part of your daily instructional practice.

When to Teach

When to Teach: Key Practices

5. Develop and implement activities, routines, and transitions that are designed to support the engagement and learning of all children.

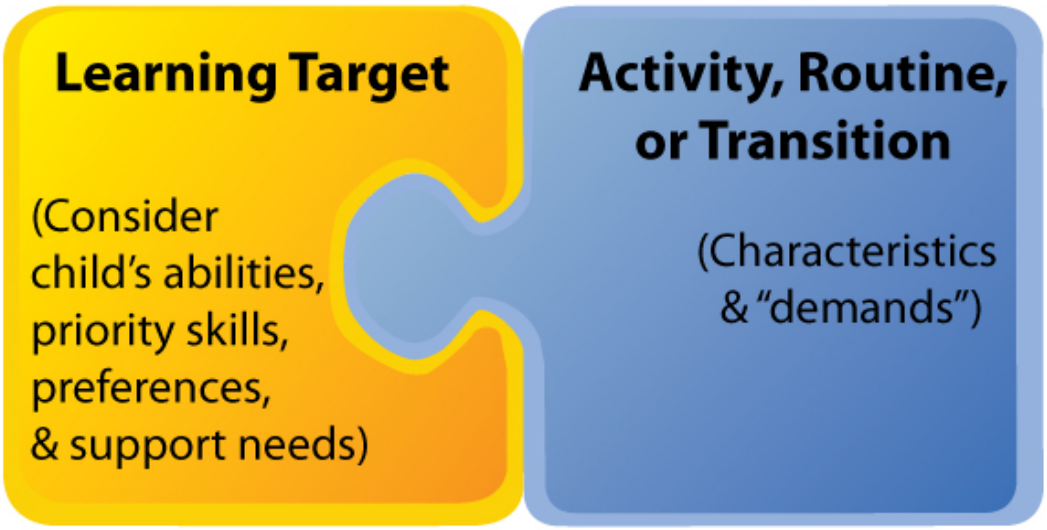
6. Select which activities, routines, and transitions are logical and appropriate to embed meaningful opportunities to practice a specified priority learning target behavior.

7. Use massed, spaced, or distributed instructional learning trials to embed multiple opportunities to practice the priority learning target behavior within and across activities, routines, and transitions, considering frequency, intensity, and duration of instruction needed.

8. Develop an **activity matrix** to record when and how many instructional trials I plan to embed to optimize child learning on priority learning targets.

Selecting Activities, Routines, and Transitions

Selecting activities, routines, and transitions for embedding instruction on priority learning targets involves examining the "fit" between the priority learning target and the characteristics and expectations of an activity, routine, or transition.

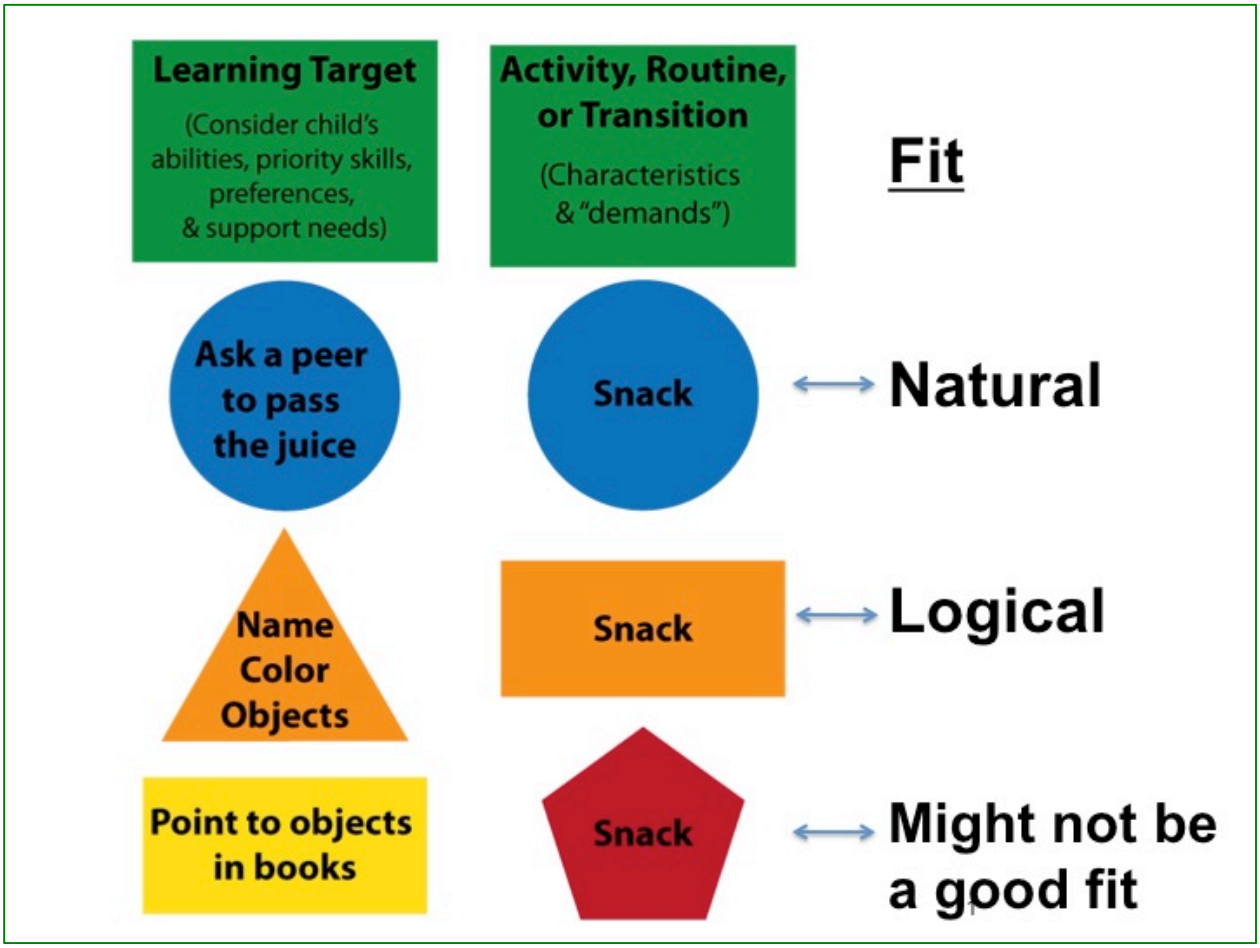


High-Quality Teaching & Embedded Instruction

The characteristics and "demands" or expectations of some activities provide natural opportunities for a child to practice some behaviors or skills. For example, snack time is a natural time for a child to practice requesting because there are multiple opportunities for all children to request food or assistance.

With a little planning, some activities might also be considered "logical" times to embed instruction on priority learning targets. This means you can arrange the environment and activity so that you can provide intentional and systematic instruction on the priority learning target without interrupting the flow of the activity or changing the activity characteristics and demands. For example, if a child is working on labeling colors, you might plan to have different colored bowls or napkins at snack time so you can ask the child what color he or she would like.

Some priorities might include features that lend themselves to being taught in specific types of activities. For example, if a child's priority learning target is related to pointing to objects in books, snack time might not be the best time to embed instruction. Story time or when the child is playing in the library center are more natural times of day to embed instruction for this particular target.



Try it Out

Take a look at your classroom schedule and one of the priority learning targets you have written for a child in your classroom. For each activity, routine, and transition, write down whether you think it is a "natural" fit, a "logical" fit, or not a good fit for embedded instruction on the priority learning target. When deciding about the fit of an activity, think about:

- ✓ *The characteristics and demands of the activity with respect to the learning target behavior*
- ✓ *How (or if) providing embedding instruction on the learning target behavior will impact the characteristics and demands of the activity*

Planning Which and How Many Trials

One of the unanswered questions when it comes to the use of embedded instruction is "*How many trials do I need to provide?*" This is one of those "it depends" questions. It depends on the child and his or her phase of learning.

You will need to provide enough instruction (sufficient number of trials) so that the child makes progress and learns. We know that once a day is unlikely to be enough, but it is difficult to predict how many trials an individual child will need to make progress. One of the benefits of embedding instruction is that if the trials are planned to occur during times and activities where the priority learning target (behavior) is needed for participation in the activity, then it is possible that the child may receive more trials than you officially plan.

Complete learning trials can be ***distributed*** throughout the day so that a child has several opportunities to practice one skill *in multiple* activities, routines, and transitions.

Complete learning trials can be ***massed*** together so that a child has multiple opportunities to practice the skill repeatedly *within* an activity, routine, or transition.

Complete learning trials can be ***spaced*** so that a child has several opportunities to practice the skill interspersed with other skills *within* an activity, routine, or transition.

Each format for delivering complete learning trials can be useful for ensuring a sufficient number of learning trials. They can be used individually or in combination. For example, you may distribute trials for a child learning to take steps independently with a walker during transitions throughout the day. It might also be appropriate to mass trials if each step is the desired behavior.

Note: The important point to keep in mind is that complete learning trials should occur in a context that is meaningful for the child. In other words, complete learning trials focused on a specific target skill should be delivered to a child in the context of activities, routines or transitions where he/she will naturally use the skill.

Distributed Trials		
Learning trials are inserted into everyday activities and routines and distributed throughout the day	Time between learning trials for the child to participate in other activities and perform other skills	Helpful to support the maintenance or generalization of a learned skill

For Example:

- ✓ Trials for stacking objects could occur across activities, such as breakfast, centers, and lunch.
- ✓ Trials for using 1-2 words to request objects could occur across activities, such as morning circle, centers, and small group games.

Massed Trials		
Learning trials inserted into everyday activities and delivered closely together in time	Focus on one behavior with repeated practice	Helpful when child is acquiring a skill or becoming fluent in using the skill

For Example:

- ✓ Trials for taking steps would naturally be repeated within an activity. The child may repeat these behaviors without engaging in another behavior.
- ✓ Trials for holding an adapted writing tool and making markings could be repeated within an activity. The child may repeat the behavior making 2-3 lines without engaging in another behavior.

Spaced Trials		
Learning trials inserted into everyday activities and pauses between trials	Practice on target behavior spaced between another behavior	Helpful when child is acquiring a skill, becoming fluent in using the skill, or support the maintenance or generalization of a learned skill

For Example:

- ✓ Trials for naming colors could occur multiple times within an activity like book reading, when you ask the child to name a color every few pages.
- ✓ Trials for requesting an object using 2-3 words could occur multiple times within center time, but naturally the child would play with the object before requesting something new.

Developing an Activity Matrix

The Activity Matrix helps you plan when, where, and how many complete learning trials you will embed within the usual activities of the classroom**.** There are lots of variations of an activity matrix, but there are essential concepts behind the use of any activity matrix.

The Activity Matrix

- It is a grid or matrix.
- The usual schedule of activities is written down the left column.
- The names of the child or children go across the top row.
- It is in the cell or block (at the intersection of the row and column) that you will write the priority learning target to identify the time to provide instruction.
- Instruction is planned ahead of time, including **when** and **how many** complete learning trials will be implemented on **which** priority learning targets.

In the next pages of this guide, you will find information about how to develop a Classroom Activity Matrix and an Individual Child Matrix.

Example Class Activity Matrix

	Mia	Mathew	Leo
Arrival	2-word combination for recurrence - 5	Follow a two-step direction relating to the immediate context - 2	Move up and down stairs without assistance - 2
Free Play	Verbally name at least 3 different colors - 6	Follow a two-step direction relating to the immediate context - 4	Use a chair or table to stand up from the floor without adult support - 5
Circle	Imitate at least one action performed by a peer - 5	Move objects or himself in relation to another object or location - 3	Will express his needs to adults and peers using 2-words - 2 3 word sentences - 2
Outside	2-word combination for recurrence - 3 Imitate at least one action performed by a peer - 5	Move objects or himself in relation to another object or location - 3	Move up and down stairs without assistance - 2
Snack	2-word combination for recurrence - 4	Follow a two-step direction relating to the immediate context - 2	Will express his needs to adults and peers using 2-words - 2 3 word sentences - 3
Class Activity	2-word combination for recurrence - 3	Hold adapted paint brush and make markings - 4	Use a chair or table to stand up from the floor without adult support - 2
Departure		Move objects or himself in relation to another object or location - 2	Move up and down stairs without assistance - 2
Transitions	Verbally name at least 3 different colors - 4	Follow a two-step direction relating to the immediate context - 2	Use a chair or table to stand up from the floor without adult support - 4

Classroom Activity Matrix

A classroom activity matrix is constructed in the following way:

1. The classroom schedule of activities is written down the left column.
2. The names of the children in the classroom (or at least the children who have special learning needs) are written across the top row.
3. The cells or blocks (at the intersection of the row and column) are used to indicate the priority learning target behavior or skill that will be embedded within that time and the number of trials that will be embedded.
4. A reminder about the instructional strategy to be used might also be included in the cells.

For planning purposes, the classroom activity matrix reminds the teacher and team of the usual activities of the day, all of the individual children's special learning needs, and the availability of adult resources. For example, on certain days the speech-language therapist might be in the classroom for an hour or on other days a volunteer might be available.

To make a classroom activity matrix, teachers and teams will need:

- The usual classroom schedule
- List of "specials" (e.g., music day, bike day, etc.)
- List of children and their current priority learning targets
- Schedules of the adults in the classroom

The teacher and team use these resources to put together the master classroom activity matrix. The goal is to provide children with sufficient embedded instruction opportunities within activities, routines, and transitions that are the best "fit" for teaching their priority learning targets.

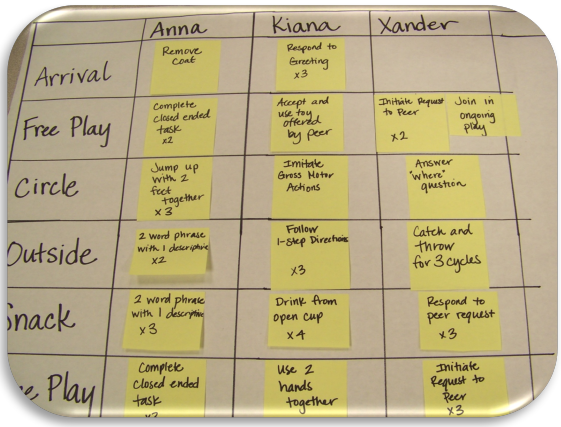
Teachers will want to think about:

1) The most naturally occurring time for instruction to occur
2) Availability of adults
3) Child preferences
4) Other children's needs

It's a juggling act! For this reason, it might be helpful to use a format that can easily be changed (such as a system with post-it notes or a whiteboard, shown below).

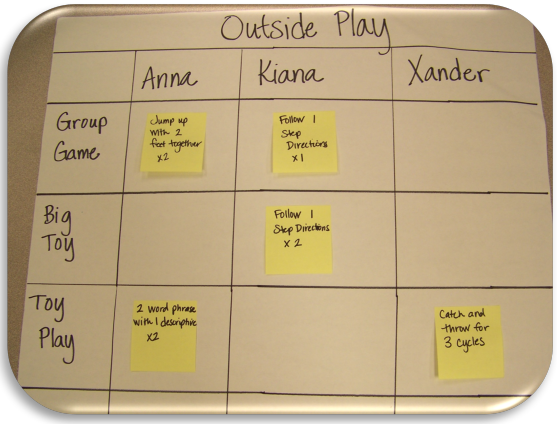
Note: When you develop the activity matrix it does not mean the teacher or other members of the child's team will never teach the target behavior during unplanned activities if a natural or logical opportunity presents itself, but it does describe the minimum number of planned learning trials the teacher believes the child will need to meet the specified criterion.

Example Class Activity Matrix



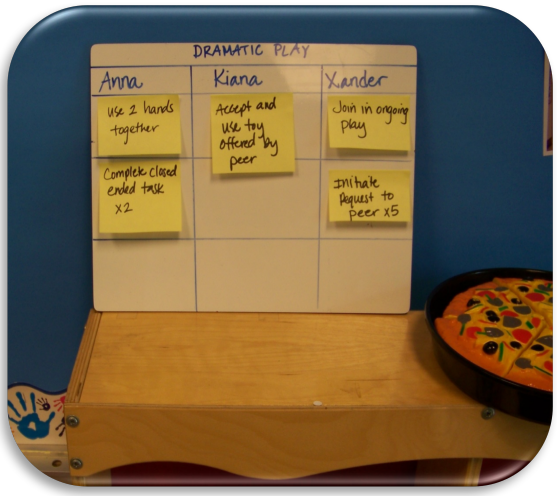
An activity matrix highlights how busy preschool classrooms really are. Teachers sometimes remark that the schedule is just too big to fit on a single piece of paper or even on a whiteboard. Many teachers have one big master schedule/activity matrix but then put more detail on smaller activity-specific matrices.

Example Activity Specific Matrix



For example, many teachers have a separate activity matrix for learning centers, free choice time, or recess. This type of activity matrix has the interest areas listed in the left column and the children's names across the top row. Here's an example of what an activity matrix might look like for outdoor play.

Example Interest Center Activity Matrix



Other teachers go even further and make separate activity matrices for each interest center area. In most classrooms, children spend a considerable amount of their preschool day at these areas. It is important to plan how individual children will use these areas and how you can provide instruction when the child arrives at an interest center.

This means it is important to plan what materials or toys will be available in the interest center or how it will be set up, in addition to planning for embedding complete learning trials in that area.

Individual Child Activity Matrix

An individual child activity matrix is used to plan when and how many learning trials will be implemented for each individual child's priority learning targets. In everyday practice, the individual child matrix is often developed before the classroom matrix. In the individual child matrix, the schedule of classroom activities goes in the left column and each of the current priority learning targets for the child go in the row across the top.

The individual child matrix gives the full picture of all of the child's current priority learning targets. Right away, the team can think about how reasonable it is to presume that the child will receive planned instruction on all of the priority learning targets. It also pushes the team to think about simpler ways to provide learning opportunities. For example, a curriculum modification (like using the child's preferred materials or adding a photographic cue) might be sufficient to support child participation and learning within an activity. That frees the adults to provide more hands-on support for other priority learning targets or for other children. Laying out all of the child's priority learning targets on the individual child matrix may also encourage the team to think about prioritizing learning targets or becoming more aware of teaching prerequisite learning targets that can then increase the possibility that the child will learn from the typical activities.

Let's look at an example for Mia:

Activity Matrix for **Mia**	**Verbally name at least 3 different colors**	**Imitate one action of peer**	**2-word combinations for recurrence**
Arrival			**5**
Free Play	**6**		
Circle		**5**	
Outside		**5**	**3**
Snack			**4**
Class Activity			**3**
Departure			
Transitions	**4**		

Individual child matrices are updated as the child makes progress on individual learning targets. Individual matrices can be used when putting together the Classroom Matrix as described above. You may find that you need to modify the number of trials or times of day when opportunities are offered when moving from an activity matrix for one child to a classroom activity matrix.

Other Considerations for Developing an Activity Matrix

Some other things to think about when developing and using an activity matrix:

- Write the priority learning target in a way that all members of the team will know what the behavior looks and sounds like. **Involve the team** in developing and updating the matrix. If just one person writes it, other team members may not know what's on the matrix.

- Remind therapists that using the matrix is a great way to ensure **therapy is provided in the classroom**.

- **Update it regularly**. If the matrix gets out of date, team members will get out of the habit of using it.

- Use change of color or other tricks to **draw team member's attention to the matrix**. If the matrix looks the same week after week, team members may stop looking at it. Use a new color of post-it note or use a different colored marker.

- **Align the number of trials on the activity matrix with the priority learning target criterion.** Use these opportunities throughout the day to collect data on the child's progress and to determine if a sufficient number of trials are being offered.

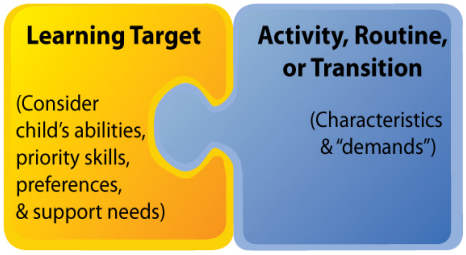
Try it Out

First, take a look at Mia's Individual Activity Matrix on page 100.

- *Are the activities planned for embedding instruction on her priority learning targets a "natural", "logical", or not a good fit?*

- *Are there any changes you might make to this activity matrix?*

*Next, use the **Individual Child Activity Matrix** and **Classroom Activity Matrix** to work with your team to plan embedded instruction for two children in your classroom. Remember to consider the characteristics and demands of the activity in relation to the child's priority learning targets and choose activities that are a natural or logical fit for embedded instruction.*



High-Quality Teaching & Embedded Instruction

How to Teach

How to Teach: Key Practices

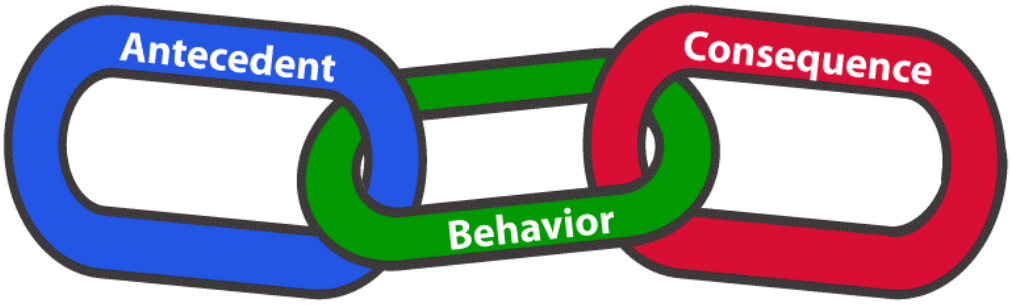
9. Use and fade systematic prompting strategies to teach the priority learning target behavior and promote child engagement and learning.

10. Implement **complete learning trials** that include (a) an environmental arrangement and/or prompt to elicit the priority learning target behavior (antecedent), (b) additional help to elicit the priority learning target behavior if the behavior does not occur, and (c) an appropriate response following the child behavior (consequence).

11. Individualize an **instructional plan** based on the characteristics of the child (e.g., preferences, interests, phase and pace of learning) and the target behavior (e.g., type of skill and level of support needed).

Complete Learning Trials

Complete learning trials are used to embed intentional teaching into naturally occurring activities, routines, and transitions (Barton, Bishop & Snyder, 2014). A basic complete learning trial occurs when there is a "complete" [or linked] A-B-C sequence.



One way a complete learning trial can occur is when a logically occurring or planned antecedent results in a behavior that leads to a logically occurring or planned consequence.

By logically occurring, we mean something that occurs logically in the child's environment.

By planned, we mean something that the teacher or another adult has done to encourage a behavior that would not otherwise have occurred.

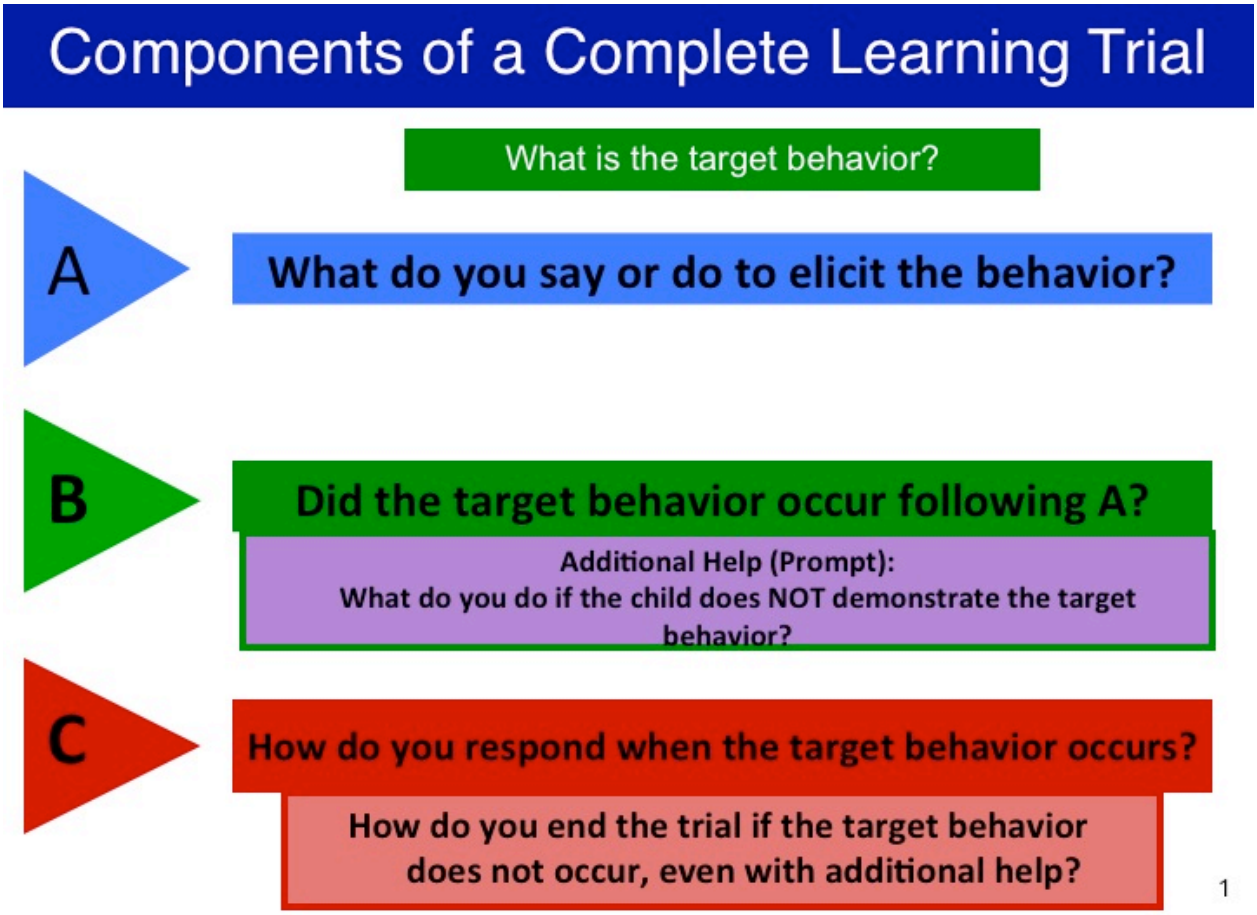
By **Antecedent,** we mean something that sets the occasion for a child's behavior. This always includes a natural cue for the behavior and might also include a prompt.

By **Behavior**, we mean something the child does following the antecedent.

By **Consequence**, we mean something that happens in the child's environment immediately following his/her behavior.

We can use complete learning trials to provide targeted, intentional, and systematic instruction on a child's priority learning targets in the ongoing activities, routines, and transitions of preschool classrooms.

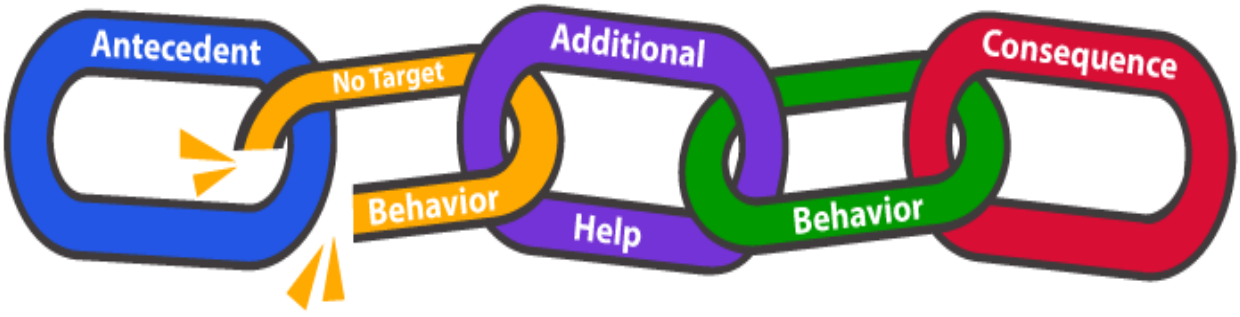
A teacher might provide additional help after an incorrect behavior to make sure that each trial is a complete learning trial.



On the following pages, we will look closer at the parts of complete learning trials:

- Antecedents [Natural Cue(s) or Natural Cue(s) Plus Prompt(s)]
- Additional Help (Prompts)
- Consequences
- Feedback

Complete Learning Trial with Additional Help



Antecedents

Antecedents are environmental objects, events, or behaviors of people that set the occasion for the targeted behavior. Antecedents are 'cues' for the child, indicating which behaviors are appropriate or desired at particular times or in particular settings.

> Antecedents signal to the child
> that a particular behavior should be emitted
> and is likely to result in a desired consequence.

The antecedent is something that lets children know that they should perform the behavior being targeted. The antecedent begins a trial for the adult and child. Antecedents always include **natural cues** to elicit the target behavior. Antecedents *might* include **natural cue(s) plus a prompt(s)** to elicit the target behavior.

Natural Cues

Natural cues are antecedents that might occur in the natural environment. Examples of natural cues include:

1. The target behavior might occur in response to materials, objects, or people that are part of classroom activities. This includes **materials in the environment or preferred objects** (e.g., toys, games, food, or other objects) that the child is interested in obtaining or communicating about. For example:

   - ✓ The child might really like to play with trucks with sirens, so the teacher places this item on the table within view, but just out of the child's reach. The child has an opportunity to ask for the preferred object.
   - ✓ The target behavior might occur in response to adults or peers (people) that are part of the classroom. For example, when Davion sees his peer, he might ask "Can I play?"

2. A target behavior might occur in response to a situation or event. This could include **situations in which something unexpected or unusual has occurred or typical and routine events,** including familiar social situations or classroom routines. For example:

   - ✓ A typical event might be when a child asks for juice because she is sitting at the snack table. In this example, snack is an event.
   - ✓ An unexpected or unusual situation might be when the child goes to the art center activity to draw a picture, but all the crayons are missing (i.e., the teacher "forgot" to put out the crayons). The child has an opportunity to ask the teacher for the crayons. Remember that an unexpected or unusual situation might happen as part of the preschool day or you might plan for these "unexpected" situations as part of embedded instruction.

3. A target behavior might also occur in response to a direction or question. A response to directions or questions might involve:

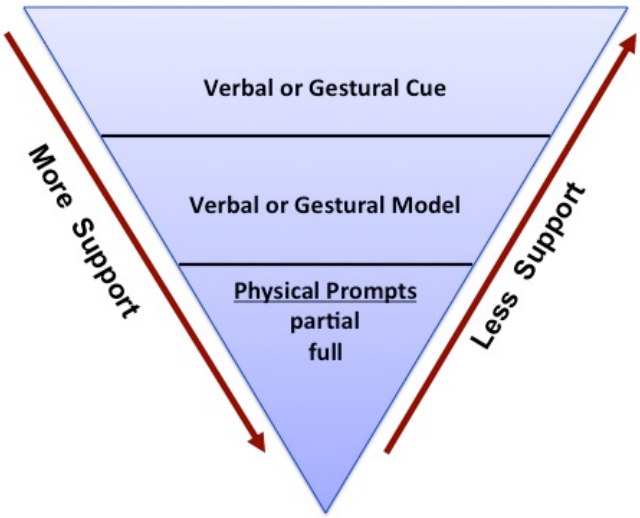
   - ✓ **Verbal behaviors,** which include comments, directives, requests, or questions from either adults or other children. For example, a teacher might say "How many cars do you have?", providing an opportunity for the child to tell how many cars he/she has.
   - ✓ **Non-verbal behaviors,** which include gestures or pictures that cue the child. For example, a teacher might point to the shelf where the toys should be placed. The child might put toys on shelf.

4. Finally, a target behavior might occur in response to a previous behavior in a chain or sequence of behaviors. In addition to the **behavior chains or sequences of behaviors** that children put together when completing tasks like washing their hands (i.e., put soap on hands, rub hands together, rinse soap off hands); or taking a drink from a cup (i.e., grasp cup, lift to mouth, tilt cup, swallow liquid, place cup on table), children might also respond to **steps in a familiar routine**. Completing one step in a well-known routine (a consequence) might cue the next step in the routine and thus also serve as an antecedent. For example:

   - ✓ If a child is "cued" by the water faucet (A) to turn the faucet (B), then water comes out (C). Water coming out serves as cue (A) to put hands under the water. After sufficient experience with a routine, one event or behavior might become an antecedent for the event or behavior that follows.

Prompts

Prompts can be thought of as a hierarchy ranging from the least supportive to the most supportive. Some or all levels of prompts may be needed to support a child in the process of learning or mastering a target behavior.



Examples:

Verbal or gestural cues

- ✓ *Asking a question:* Asking Matthew, "Can you help me clean up the cars?" while he sorts cars and blocks onto the correct shelves during a clean-up time transition.
- ✓ *Giving a direction*: Saying to Matthew, "Put the small cars in the basket" during clean-up time transition.
- ✓ *Gestural cue:* Pointing to the shelf for toy cars while Matthew is putting away toy cars and blocks during clean-up time transition.

Verbal or gestural model

- ✓ *Verbal model*: Model a 2-word phrase to request for more for Matthew during a clean-up time transition by saying, "Need more cars." (Matthew is likely to approximate this request: "More cars.")
- ✓ *Gestural model*: Demonstrating for Matthew how to put the blocks on the shelf and the cars in the basket during clean-up time transitions.

Physical Prompts

- ✓ *Partial physical prompt:* A light touch or nudge on Matthew's elbow when assisting him to put the cars on a shelf during clean-up time.
- ✓ *Full physical prompt:* Hand over hand assistance given to Matthew as he is putting cars on a shelf during clean-up time.

Selecting Prompts

Prompts are useful when natural cues do not provide the support children need to produce target behaviors. In addition, there may be cultural considerations in selecting which prompt or prompts to use. You will want to select the prompt that will help to elicit the desired behavior for the particular child, but is also the least intrusive.

Verbal or gestural cues provide the least amount of support and are generally the most frequently used prompts. Providing a verbal or gestural model for a child to imitate provides a little more information for the child, making it more likely that the child will produce the desired behavior (that is, if the child can imitate).

It is also important to remember that in the prompt hierarchy physical prompts are listed in order of support provided. A full physical prompt provides more support than a partial physical prompt.

Fading Prompts

Prompts might be necessary to elicit a desired behavior and can be part of a complete learning trial. It is important to remember that when you use prompts, you should be careful to fade them out so that the child is eventually performing the priority learning target skill independently.

When fading, prompts are gradually diminished until behaviors occur with the natural cues. This is called transferring stimulus control from the adult to a naturally occurring cue or stimulus in the environment. The instructional strategies of least-to-most prompting and most-to-least prompting are strategies for fading prompts, as they both lead to the child producing the desired behavior without any prompts.

Through fading, prompts are gradually diminished until behaviors occur without any prompts.

Strategies for fading prompts include:

- ✓ Decreasing the number of prompts by implementing some complete learning trials that don't include a prompt.
- ✓ Decreasing the intensity with which you give a prompt by voicing a verbal prompt more softly over time or reducing the control of a physical prompt over time.
- ✓ Increasing the time between a naturally occurring antecedent and the delivery of a prompt by pausing to see if the target behavior will occur in response to the antecedent before you provide a prompt. This is called "**time delay**".

Examples of fading prompts:

- ✓ To help Davion learn to walk up and down stairs, you might fade from a full physical prompt (most intrusive), to partial physical assistance, to possibly a verbal reminder to hold the rail, and then eventually independently performing the skill.

- ✓ To help Davion use 3-word phrases when making requests, you could use time delay to gradually lengthen the amount of time between the antecedent and the prompt until he is able to produce the behavior without your prompt.

Providing Additional Help (Prompts)

If the child does not perform the target behavior following the antecedent, the teacher can provide additional help to increase the likelihood that the child will perform the target behavior.

Additional help increases the likelihood that the child will perform the target behavior and should be provided if the target behavior does not occur following the antecedent.

Providing additional help gives the teacher another chance to elicit the target behavior and, if successful, provide a consequence that would complete the learning trial. There are several options to consider when selecting the additional help prompt:

- ✓ **Repeat** the initial antecedent, if you think the child did not see it or did not attend to it.
- ✓ Provide a different or **more supportive prompt** that will help the child perform the target behavior.
- ✓ Provide a prompt in which you guide the child through the target behavior (**physical prompt**). Remember this is not possible for all behaviors. With verbal behaviors, you can typically only provide a model.

In some situations, you might use a successive combination of these options.

Your choices for prompts depend on (a) the characteristics of the child, (b) the behavior you want the child to perform, (c) the child's phase of learning, and (d) other circumstances in the activity (e.g., if peers are waiting for the child to do the behavior, it is important for the child have quick success and praise).

Hopefully, the use of a prompt will result in eliciting the desired behavior so that a consequence can be provided.

- ✓ For example, Davion is asked to count the number of cups that are on the table for snack (3 cups). His teacher says, "Davion, how many cups do we have?" Davion touches the first cup and says "one", but as he touches the second cup, he says "three." His teacher then provides an additional help prompt to make sure that he counts the three cups correctly so that a positive consequence can be provided. She says, "How many cups? Count them again." She guides his hand to move each cup (physical prompt) and verbally models counting each one for him so that he counts the cups correctly.

Consequences

A consequence is something that happens in the child's environment immediately following his/her behavior. A consequence can increase or decrease the likelihood that a behavior will occur again in the presence of the same antecedent. The embedded instruction approach uses positive consequences.

A positive consequence is something that is presented in the child's environment immediately following the behavior, which ***increases*** the likelihood that the behavior will occur again in a similar situation.

It is important that consequences occur **immediately** after the target behavior. It is also important to pair the consequence with the behavior every time it occurs, especially when the child is initially acquiring or learning the behavior.

Selecting Consequences

Consequences need to be individualized for children because one child may not desire what another child desires. Also, for a particular child, desired consequences may change over time. It's important that the adult continually consider whether consequences provided for a particular child are desired enough by the child to increase their motivation to produce the targeted behavior.

Types of Consequences

Naturally Occurring Consequences:

- ✓ *Access to preferred toys, materials, activities, or people*. Some examples would include being allowed to play with a toy after requesting it, using a 3-word phrase, listening to music after activating an adapted switch, sitting in a special chair after signing to request a turn, or playing with friends after using a comment to enter an ongoing play interaction.

- ✓ *Continued social interaction*. An example would be an adult or peer who continues to engage in a desired activity with the child such as continuing to roll a ball back and forth after the child holds out his arms.

- ✓ *Acknowledgment or praise from another*. This can be verbal or non-verbal recognition from an adult or child.

    - → *Verbal recognition* examples would include phrases such as, "I like the way you____!" "Good job," "Awesome!" However, praise is most effective if it is descriptive and tells what the child did. For example, saying "Good,

you asked your friend for a block." is more effective than saying "Good job." Acknowledgement should also attribute children's success and improvement to their effort rather than to external factors such as luck.

→ *Non-verbal recognition* examples would include smiling enthusiastically, giving high-fives or thumbs up, a pat on the back, hugs, or proximity to child.

✓ *Understanding, learning or mastering.* The child understands that he or she is learning or mastering a skill and shows a sense of joy or excitement. For example, the child puts together the puzzle and says, "I did it!".

Planned Consequences:

✓ *Token, food, or preferred object*. The child is given an object along with verbal recognition after the desired behavior occurs. For example, the child is given a piece of cereal each time she names a picture in a storybook. The cereal is unrelated to the target behavior of naming pictures. While planned consequences such as the cereal may be less related to the target behavior than natural consequences, they are sometimes necessary to motivate children when a natural consequence is not sufficient**.**

→ **It is important that the unrelated consequence be paired with a natural consequence such as verbal recognition and that the unrelated consequence is faded over time (e.g., Say, "You're right! That is a house." while giving the child the piece of cereal.).**

✓ *Praise.* Praise is a form of feedback that tells the child they have accomplished the desired behavior or performed the correct behavior (e.g., "Good job, you did it!").

✓ *Descriptive Feedback.* Providing descriptive feedback gives the child information about his/her performance by making explicit for the child what was correct and what was not correct about the behavior. For example, saying "Good, you asked your friend for a block." is more effective than saying "Good job."

→ Descriptive feedback can also be used when the target behavior does **NOT** occur after additional help is provided. In this case, descriptive feedback is used to model or tell the child what the desired target behavior is. For example, saying, "If you want a block, you should say, 'Can I have a block?'" provides specific feedback about what target behavior is expected.

Feedback

Sometimes the target behavior does not occur even after additional help is provided to the child. When this happens, it might be necessary to end the trial without the behavior occurring. Before moving on to another instructional learning trial or activity, it is important to end the trial by providing feedback.

Feedback is used to end a learning trial when the target behavior does **not** occur, even after additional help is provided.

Feedback should describe what the child did or what the child should have done.

- ✓ For example, if despite several prompts to elicit a 2-word request, the child does not produce 2 words, the teacher might decide to end the trial by saying, "You said 'milk' but I wanted you to say 'more milk.'" The teacher would simply move on after providing the feedback and would come back to the child later and provide another opportunity for the child to demonstrate the target behavior (2-words request).

When a trial ends with feedback, it has been implemented with fidelity (i.e., a correct learning trial) because the teacher implemented all components of the trial correctly, but the target behavior did not occur.

A Correct Learning Trial with No Child Behavior

Putting the Pieces Together for Complete Learning Trials

Basic Complete Learning Trial

Antecedent	Behavior	Consequence
The teacher says, "Matthew, put the red car in the garage," while she points in the garage.	Matthew drives the car into the garage.	The teacher says, "Good job! You parked the car in the garage."

Complete Learning Trial with Additional Help

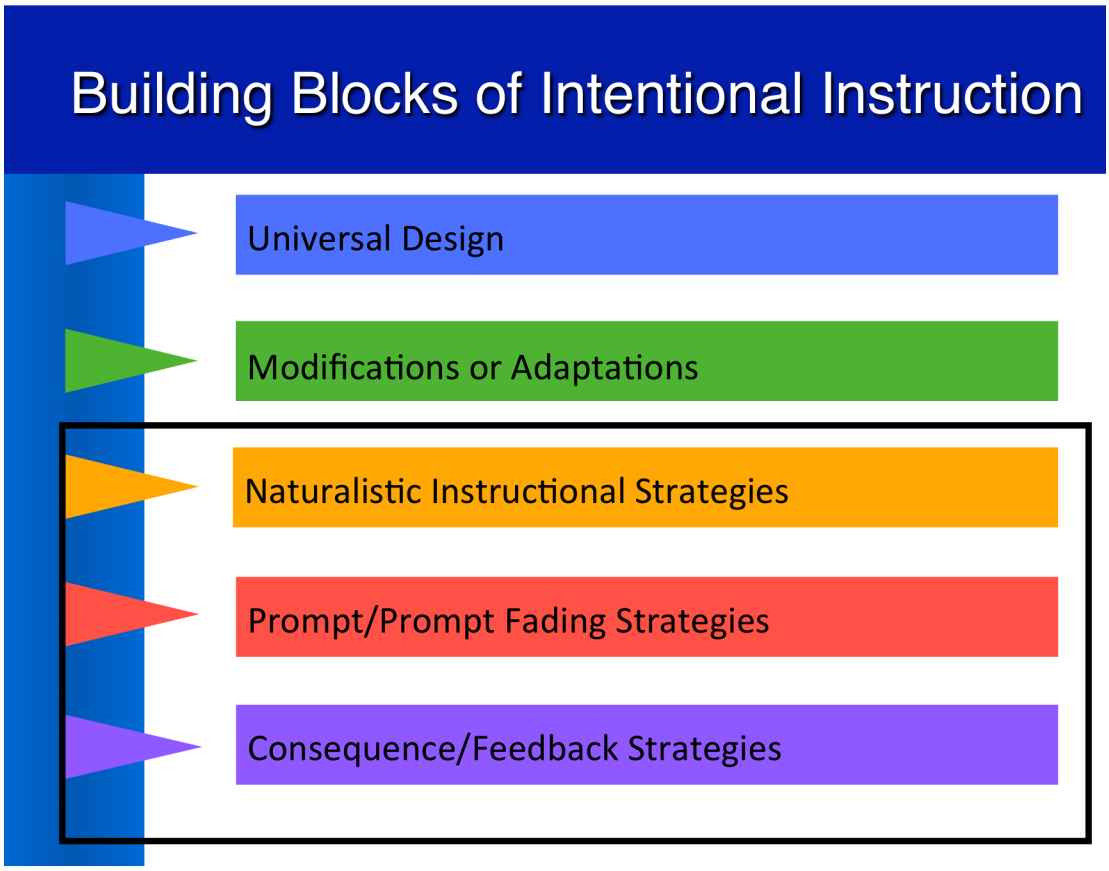
Antecedent	Behavior	Additional Help	Behavior	Consequence
The teacher gives Davion 2 blocks and says, "How many blocks do we have?"	Davion points to one block and says, "1."	The teacher says, "You said one. There are two blocks." The teacher takes Davion's hand and points to each block, saying, "1, 2."	Davion points to each block and says, "1, 2."	Teacher says, "Great job. You counted two blocks," while counting the blocks again: "1, 2."

Correct Learning Trial with Feedback

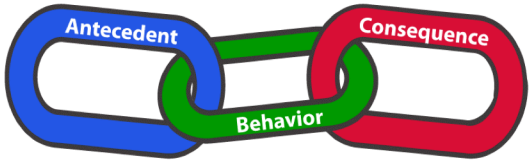
Antecedent	Behavior	Additional Help	Behavior	Feedback
The teacher gives Davion 2 blocks and says, "How many blocks do we have?"	Davion points to one block and says, "1."	The teacher says, "You said one. There are two blocks." The teacher takes Davion's hand and points to each block, saying, "1, 2."	Davion points to one block and says, "1."	Teacher says, "You counted one block". The teacher models counting two blocks, "1, 2," and then says, "We will try again later."

Instructional Procedures

The following instructional procedures can be used to ensure you are implementing complete learning trials. These procedures have been taken from a variety of sources emphasizing different aspects of instruction. Each procedure is unique in the way it promotes complete learning trials. Procedures can be used together to ensure complete learning trials. Instructional procedures include universal design, modifications or adaptations, naturalistic instructional strategies, prompt and prompt/fading strategies, and consequence and feedback strategies.



Remember: instructional procedures are effective when they result in a complete learning trial.



Naturalistic Instructional Strategies

Naturalistic instructional strategies help children learn a new behavior or skill. They typically involve following the child's lead and helping the child to expand or elaborate on his/her behavior. We will look at three naturalistic strategies in detail.

Naturalistic strategies include, but are not limited to:

- Incidental Teaching
- Mand-Model
- Naturalistic Time Delay

Incidental Teaching

Incidental teaching is a naturalistic strategy that is initiated by the child. The child initiates an interaction in response to something in the environment that he wants to obtain or wants to communicate about. The adult uses this initiation as an opportunity to elicit more elaborate behavior by prompting the child. When the child produces the more elaborate target behavior, a positive consequence is provided.

When to use:

- ✓ The adult might arrange the environment to encourage the child's desire for interactions and might also use incidental teaching as it naturally occurs during the day. Incidental teaching is useful for priority learning targets focused on communication, but can also be used with other types of skills including social skills. Incidental teaching is more useful in naturally occurring routines and activities in which child initiations are likely to occur.

Who to use it for:

- ✓ Incidental teaching is useful for children with a variety of disabilities who are able to initiate communication or engage with materials.

Mand-Model

Mand-model is a naturalistic strategy initiated by the teacher. In this strategy, the teacher provides a mand to the child followed by a model of the target behavior. For example, the teacher might want the child to use single words to communicate. The teacher might say to the child "say juice" (mand-say; model-juice). After the child says "juice" the teacher provides descriptive feedback (e.g., "Good job you said 'juice' and I gave you the juice box.").

When to use:

- ✓ Mand-model is useful when the child is unlikely to produce the target behavior without a model demonstration to imitate.

Who to use it for:

- ✓ Mand-model is useful for children with a variety of disabilities who need to expand their communication skills. Children should be able to imitate for this strategy to be effective.

Naturalistic Time Delay

Naturalistic time delay involves using a naturally occurring antecedent in the environment that sets the occasion for the child to: (a) request assistance, (b) ask for an object, or (c) request to join an activity.

The occasion is a naturally occurring activity for which the adult has identified a target behavior and prompt. Following a natural antecedent, the adult should: 1) establish joint attention, 2) look expectantly at the child, and 3) wait for about 5 seconds for the child to perform the targeted behavior. If the child performs the targeted behavior, a naturally occurring consequence will be obtained. If the child does not perform the targeted behavior, a prompt that will elicit the behavior should be given. If the targeted behavior occurs following the prompt, the consequence will be obtained. If the child produces a behavior that is not the target behavior, additional help (i.e., correction procedure) that will elicit the behavior should be used. If the targeted behavior occurs following the additional help, the consequence will be obtained.

When to use:

- ✓ Naturalistic time delay is easy to use in ongoing routines and activities. It can also be used across domains, including self-help, social, pre-academic, and communication skills. Naturalistic time delay is useful when working with individual children or during group instruction. Also, it is useful when focusing on individual behaviors or sequences of behaviors.

Who to use it for:

- ✓ Naturalistic time delay can be useful for children with mild or significant disabilities. It is also effective with children who are motivated to respond.

Prompt/Prompt Fading Strategies

Prompt/prompt fading strategies provide explicit support to help children perform skills/behaviors. Prompt/prompt fading strategies are similar to naturalistic instructional procedures. However, prompting strategies typically are given specific names and have specific instructional steps that are followed.

Prompt/prompt fading strategies include, but are not limited to:

- System of Least Prompts (SLP) (increasing assistance)
- Most-to-Least Prompts (MLP) (decreasing assistance)

System of Least Prompts

In a system of least prompts, the child is given increasing amounts of help until the learning trial is complete. Two or more levels of help may be needed in a single complete learning trial. If the child only needs a little help, a verbal prompt may be enough. If more adult help is necessary, the adult would provide increasingly supportive prompts until the target behavior is elicited. All of the levels of prompts may be used or only selected levels from less supportive to more supportive.

When to use:

- ✓ The system of least prompts is very useful for skills that a child is able to perform, but not with accuracy or fluency. It also can be used to support generalization. This system provides the opportunity for the child to respond as independently as possible. However, using a system of least prompts may also allow the child to make errors. In some cases, the child may learn that help is coming if he waits, which can create dependency on prompts.

Who to use it for:

- ✓ The system of least prompts is useful for children with a variety of disabilities.

Most-to-Least Prompts

In most-to-least prompts, the adult only gives one level of assistance per complete learning trial. To prevent child errors or help a child learn a behavior not in his repertoire, the adult initially uses the most assistance needed to ensure a correct response. The help will be gradually decreased across future complete learning trials until the child performs the target behavior without help.

When to use:

- ✓ Most-to-least prompts are useful when a child is acquiring a skill. It is also useful for teaching behaviors that are made up of a sequence or chain of behaviors such as dressing or grooming skills. The advantage of most-to-least prompting is that child errors are kept at a minimum with respect to the target behavior. However, teachers should probe to determine when support levels should be reduced.

Who to use it for:

- ✓ Most-to-least prompts are particularly effective with children with significant disabilities.

Consequence/Feedback Strategies

Consequences and feedback strategies are used in conjunction with other instructional procedures to ensure a complete learning trial.

Positive Consequences

If the child responds to an antecedent with a correct behavior, a positive consequence should **always** be provided. A positive consequence makes it more likely that the child will produce the behavior again in relation to the antecedent. Positive consequences can occur naturally as a result of the situation or they can be planned and delivered by the adult. For information about positive consequences see the consequences section of this guide (**page 112**).

Feedback

Descriptive feedback can be paired with a positive consequence. Descriptive feedback provides the child with more information about the situation. For example, a teacher might ask a child, “Where is the red car?” The child hopefully will respond by pointing to the red car. The teacher might say, “Yes, you found the red car. Good pointing.” In this situation, the teacher has described for the child what they did that is resulting in praise.

Feedback can also be provided to end a trial when the target behavior does **not** occur, even with additional help. In this case, it is important to provide feedback to the child to model the expected target behavior. Using the example above, if the child does not find the red car after additional help, the teacher might point to the red car and say, “This is the red car. We can try again later.” For information about feedback see the consequences section of this guide (**page 114**).

When to use:

- ✓ Consequence and feedback strategies are useful for increasing the child’s demonstration of the reinforced skill or behavior in the presence of a similar antecedent.

Who to use it for:

- ✓ Consequence and feedback strategies are useful for all children.

Instructional Procedures Reference Chart

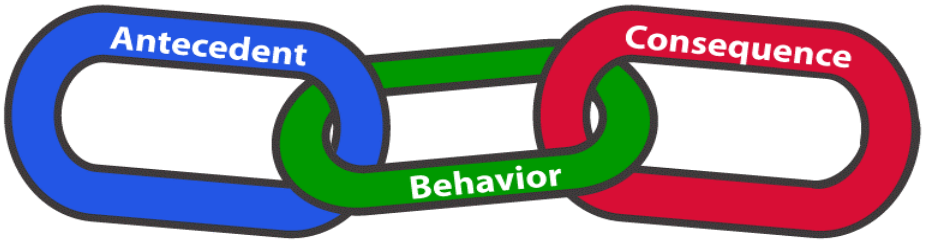
Instructional Procedures	Specific Strategies	Example
Naturalistic instructional strategies help children learn a new behavior or skill. They typically involve following the child's lead and helping the child to expand or elaborate on his/her behavior.	• Naturalistic Time Delay • Mand-Model • Incidental Teaching	• A child's priority learning target involves using a finger to push buttons to activate toys. The child is using her fist to try and activate the toy. The adult joins the child's play, imitates the child's pushing action and then uses a finger to point to the button on the toy and says, "Use your finger to push the button." If the child does not respond within a certain time period (e.g., 5 seconds), the adult might prompt the child again to push the button. --- • The teacher shows the child that the ball is available for use during play (the child really likes soccer balls). The teacher waits 5 seconds for the child to request the ball. If the child does not request the ball, the teacher models asking for the ball (e.g., ball, please; I want ball). The child gets to play with the ball after asking for it, following the adult model.
Prompt/prompt fading strategies are used to increase the probability that the child will respond. Many types of prompting strategies are available; however, prompts should be faded as soon as possible.	• System of least prompting • Most to least prompting	• Mia is working on naming pictures in books. The teacher gestures to a picture and waits for Mia to respond. Mia does not. The teacher then says, "Oh, I see a ___." and waits for Mia to respond. If Mia does not respond, the teacher will continue to provide more intrusive prompts (i.e., prompt hierarchy). For example, the teacher might point to the object and say, "What's this?" or "Say dog." • Sam is learning to imitate adult actions. His teacher starts by providing a full physical prompt to show him how to perform the action.

		After Sam can imitate with a full physical prompt the teacher will provide partial physical help to perform the actions. Periodically the teacher will check to see if Sam can perform the action with a gesture rather than a partial physical prompt and will continue to fade the level of prompting over time (e.g., full physical, partial physical, gestural cue, verbal cue, natural cue).
Consequence/Feedback strategies are used in conjunction with other instructional procedures. They should **always** be used after a child has demonstrated a targeted behavior so that a complete learning trial is obtained.	• Providing a positive consequence - A consequence for a behavior that increases the likelihood that the behavior will occur again with more intensity or for longer duration. --- • Providing descriptive feedback - Praise is most effective if it describes what it was the child did that was targeted. Descriptive feedback is used to let the child know what they did that was correct. --- • Providing feedback to end a trial when the target behavior does not occur - If the target behavior does not occur even after additional help is provided, **it is important to provide feedback to tell or show the child the expected behavior.**	• After a child counts to 5, the teacher says, “Wow, way to go counting to 5.” (planned consequence). • After a child asks for his favorite book, the teacher gives the book to the child (naturally occurring consequence). --- • If a child wants a toy truck that is out of reach and asks their peer if they can have the toy, the teacher might say, “Good job using your words to ask Benji for the truck.” --- • If a child’s target behavior is to use a 3-word phrase to request and she uses a 2-word phrase to request a ball after additional help is provided, the teacher might say, “If you want the ball, you should say, ‘I want ball.’”

Using the Instructional Plan

Use the instructional plan in the Appendix to:

- ✓ Identify the target behavior
- ✓ Identify the antecedents, including the instructional context, natural cues to elicit the target behavior and what, if any, prompts will be used
- ✓ Identify what additional help (prompts) will be provided if the target behavior does not occur
- ✓ Identify the consequence(s) that will occur if the child demonstrates the correct target behavior
- ✓ Identify what feedback you will provide if the target behavior does not occur, even with additional help



Complete Learning Trial

Selecting and individualizing the right instructional procedure for a particular child or a particular priority learning target is a problem-solving process. With practice and experience, teachers get faster at making these selections.

Remember to consider:

- ✓ Characteristics of the child (including preferences and interests)
- ✓ Type of skill or behavior
- ✓ Child's phase and pace of learning (acquisition, fluency, maintenance, generalization, adaptation)
- ✓ Instructional procedure(s) that is least intrusive and most effective

Adjust the instructional plan as child learning progresses.

Wrap-Up

Wrap-up

The purpose of this practice guide was to provide you with additional resources and practice for implementing key embedded instruction practices related to 'When to Teach' and 'How to Teach'.

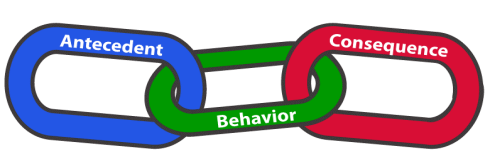
Now, you should know how to:

- Provide high-quality classroom activities,
- Select appropriate times and activities for embedded instruction,
- Develop individual and classroom activity matrices to plan for when and how many trials to provide, and
- Plan for and implement complete learning trails.

With the information from this and previous modules you should now be planning and implementing complete learning trials in your classroom!

Remember to develop an instructional plan to guide the implementation of complete learning trials. Use the questions below to guide the development of your instructional plan.

- What is the target behavior?
- What will you say or do to elicit the target behavior, given the instructional context?
    - What prompts will you provide, if any?
- What additional help will you provide if the target behavior does **not** occur or is only an approximation of the target behavior?
- How will you respond when the target behavior occurs?
- What you will do to end the trial if the behavior is incorrect or does not occur after additional help?
-



In future modules (How to Evaluate), you will learn more about evaluating embedded instruction to determine if you have implemented embedded instruction as planned and whether it has resulted in child learning and involving your team.

References

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Appendix

Activity Planning and Implementation Checklist for Use with Embedded Instruction

	I do this well	I want to do this better
All Activities		
1. I plan for and implement developmentally appropriate activities.		
2. I plan for and implement activities that build on children's interests.		
3. I plan for and implement engaging activities that are meaningful for children.		
4. I plan for and implement activities that include action components for children (what children will do or say).		
5. I use principles of universal design when designing activities.		
6. When necessary, I provide modifications and adaptations to support all children's access to and participation in activities.		
7. I structure activities to encourage peer interactions.		
8. I rotate materials regularly (e.g., at least every month) within and across activities.		
9. I teach children the expectations and sequences of activities.		
10. I plan for and implement a variety of types of activities each day.		
Teacher-Directed Large-Group Activities		
1. I plan for and implement large group activities with respect to children's learning goals.		
2. I vary the structure and activities for large-group activities on a regular basis (e.g., vary based on themes, child).		
3. I provide opportunities for children to be actively involved in large-group activities.		
4. I provide opportunities for peer-to-peer interactions during large-group activities.		
5. I limit the duration of large-group activities to 15-20 minutes.		

	I do this well	I want to do this better
6. I monitor children's engagement and modify the structure or activities when children lose interest in large-group activities.		
7. I use repetition during large-group activities to provide children with multiple learning opportunities.		
8. I design large-group activities so they have a logical beginning, middle, and end.		
Teacher-Directed Small-Group Activities		
1. I plan for and implement small group activities with respect to children's learning goals.		
2. I vary the structure and activities for small-group activities on a regular basis (e.g., vary based on themes, child interests, learning goals).		
3. I provide opportunities for children to be actively involved in small-group activities.		
4. I provide opportunities for peer-to-peer interaction during small-group activities.		
5. I limit the duration of a small-group activity to 15-20 minutes.		
6. I monitor children's engagement and modify the structure or activity when children lose interest in small-group activities.		
7. I use repetition during small-group activities to provide children with multiple learning opportunities.		
8. I design small-group activities so they have a logical beginning, middle, and end.		
Child-Initiated Activities		
1. I provide access to a variety of materials during child-initiated activities and ensure materials are readily accessible for all children.		
2. I provide children with repeated opportunities to make choices during child-initiated activities.		
3. I effectively select, arrange, and use materials in child-initiated activities that promote child engagement and learning (e.g., preferred, novel, aligned with themes or projects, culturally relevant).		
4. I follow the child's lead and expand on child interests and preferences during child-initiated activities.		
5. I encourage peer-to-peer interactions during child-initiated activities through environmental arrangements and use of peer-mediated intervention strategies.		
6. I consider how to adjust child-initiated activities by adapting the materials and their access to promote embedded learning opportunities.		

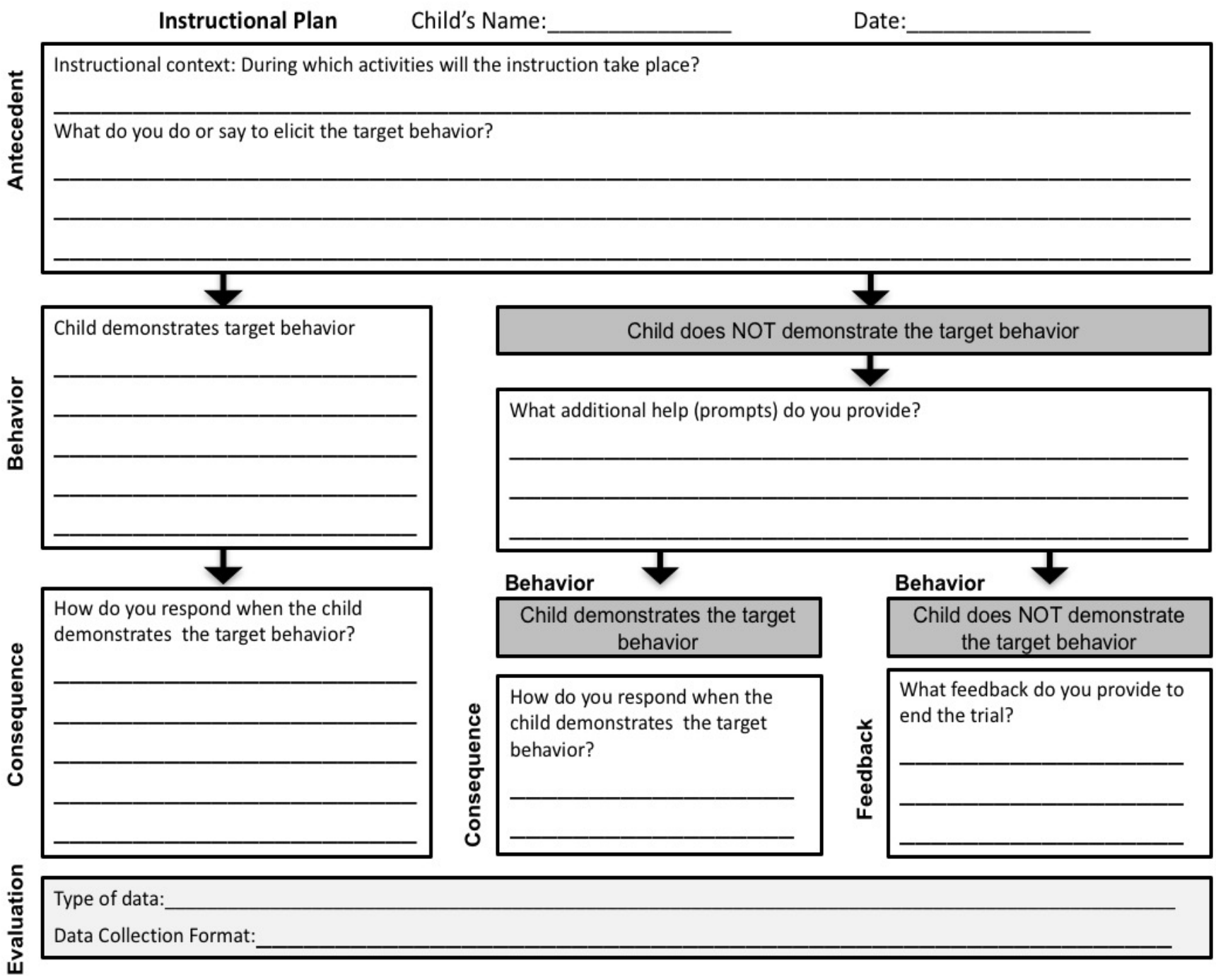
	I do this well	I want to do this better
7. When necessary, I provide individualized modifications and adaptations to support children's access and participation in child-initiated activities.		
Routines		
1. I plan for and implement predictable routines.		
2. When necessary, I provide individualized modifications and adaptations to support children's access and participation in routines.		
3. I plan for how to adjust routines by changing what children do in them (e.g., use snack time to embed instructional opportunities related to communication or social goals).		
4. I plan for and implement routines so they have a logical beginning, middle, and end.		
5. I teach children the expectations and steps of the routine.		
Transitions		
1. I plan my schedule to minimize the number of transitions children have during the day.		
2. I plan for and implement short transitions (i.e., 5 min or less).		
3. When necessary, I provide individualized modifications and adaptations to support children's access and participation during transitions.		
4. I plan for and implement instruction during transitions for some children.		
5. I plan for and implement transition "warnings" consistently throughout the day.		
6. I teach children the expectations and steps of a transition.		
7. I plan for and implement transitions so that children have something to do while they are waiting for other classmates or teachers.		

Individual Child Activity Matrix

Child's Name: _____ Today's Date: _____

Classroom Activity Matrix
(Three Children)

Classroom Activity Matrix
(Five Children)


Instructional Plan
Child's Name:_____
Date:_____
Antecedent
Instructional context: During which activities will the instruction take place?
What do you do or say to elicit the target behavior?
Behavior
Child demonstrates target behavior
Child does NOT demonstrate the target behavior
What additional help (prompts) do you provide?
Consequence
How do you respond when the child demonstrates the target behavior?
Behavior
Child demonstrates the target behavior
Consequence
How do you respond when the child demonstrates the target behavior?
Behavior
Child does NOT demonstrate the target behavior
Feedback
What feedback do you provide to end the trial?
Evaluation
Type of data:
Data Collection Format: