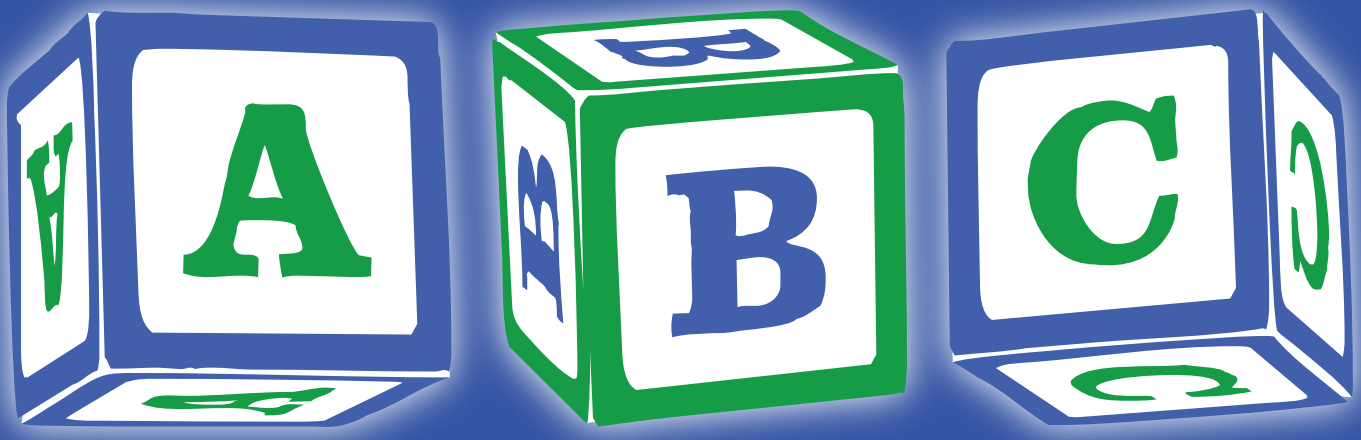
Embedded Instruction for Early Learning

Tools for Teachers

Module I: Overview



Module 1: Overview
Workbook and Practice Guide
Research Version 3.0

Produced by the "Impact of Professional Development on Preschool Teachers' Use of Embedded Instruction Practices" Goal 3 study funded by the National Center for Special Education Research, Institute of Education Sciences (Project Number: R324A150076). The Principal Investigators and Co-Principal Investigators are Patricia Snyder, James Algina, and Mary McLean, University of Florida, and Mary Louise Hemmeter, Vanderbilt University. Brian Reichow, University of Florida, is an Investigator. The Project Coordinator is Crystal Bishop, University of Florida. Susan Sandall, Tara McLaughlin, and Larry Edelman contributed to a previous version of this workshop module, workbook, and practice guide.

Suggested citation:
Embedded Instruction for Early Learning Project. (2015). *Tools for Teachers Module 1: Overview* [Workbook and Practice Guide]. Unpublished professional development series. College of Education, University of Florida, Gainesville, FL.

For additional information or permissions contact: Patricia Snyder (patriciasnyder@coe.ufl.edu), or Crystal Bishop (crowecd@coe.ufl.edu), Anita Zucker Center for Excellence in Early Childhood Studies, University of Florida, Gainesville, FL 32611.

Welcome to the first in a series of four workshops focused on embedded instruction for early learning. The workshops are organized as learning modules. This workshop is Module 1: Overview. The four learning modules are part of a comprehensive professional development "toolkit" known as *Tools for Teachers*.

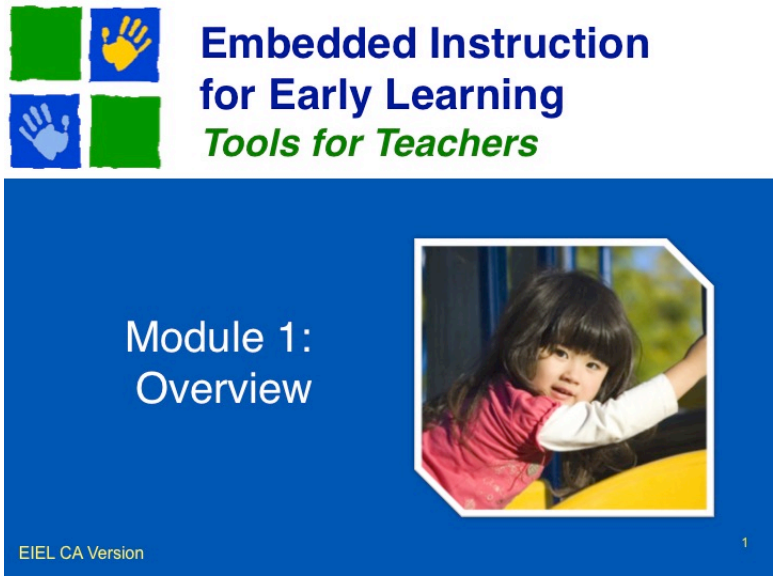
The Module 1 Workbook is designed for you to use during the workshop. Follow along with the slides and activities. Write your notes and ideas directly into this booklet. After the workshop, review the material for a refresher on what you have learned. The Module 1 Workbook starts on page 7 of this booklet.

The Module 1 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 staff learn about embedded instruction. The Module 1 Practice Guide starts on page 55 of this booklet.

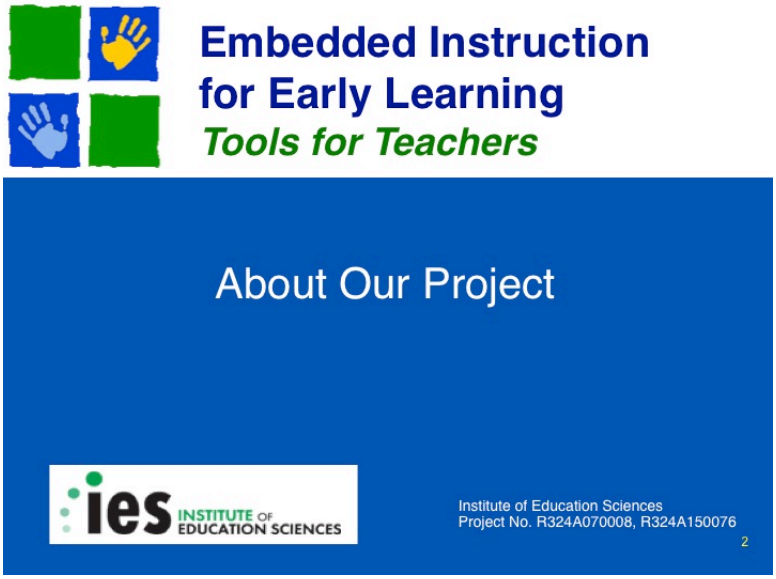
Module 1: Overview Workbook & Practice Guide

Table of Contents

Workbook


Embedded Instruction
for Early Learning
Tools for Teachers
Module 1:
Overview
EIEL CA Version
1

Notes:


Embedded Instruction
for Early Learning
Tools for Teachers
About Our Project
ies INSTITUTE OF EDUCATION SCIENCES
Institute of Education Sciences
Project No. R324A070008, R324A150076
2

Notes:

Embedded Instruction is an Evidence-Based Practice

3

Notes:

Welcome to Our Team!

Patricia Snyder
University of Florida

James Algina
University of Florida

Mary McLean
University of Florida

Mary Louise Hemmeter
Vanderbilt University

4

Notes:

Tools for Teachers Project Team

- University of Florida
  (Patricia Snyder, PI; Mary McLean, Co-PI; James Algina, Co-PI; Brian Reichow, Investigator; Crystal Bishop, Project Coordinator; Darbianne Shannon, Coach; Kathy Ward-Cameron, Coach; Jean Malverez, Coach; Kim Megrath, Coach)
- Vanderbilt University
  (Mary Louise Hemmeter, Co-PI; Catherine Corr, Site Coordinator; Angela Sanderson, Coach; Kymberly Horth, Coach; Molly Gilson, Coach; Leah Slayton, Coach)
- Massey University New Zealand
  (Tara McLaughlin, Consultant and Web Design Team)
- Technology Consultant
  (Roland Riddell, Web Design Team)

And, of course, preschool teachers, children, and their families

5

Notes:

Getting to Know You…..

6

Notes:

Ground Rules

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

7

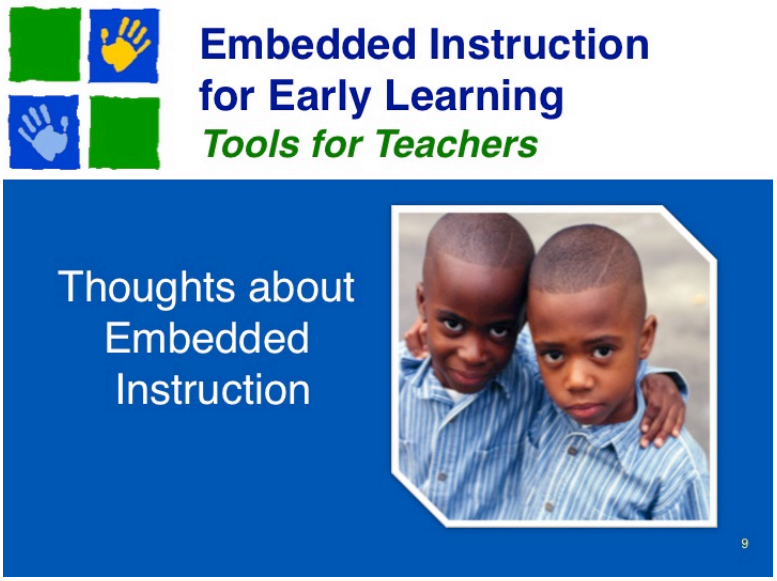
Notes:

Evaluation of *Tools for Teachers*

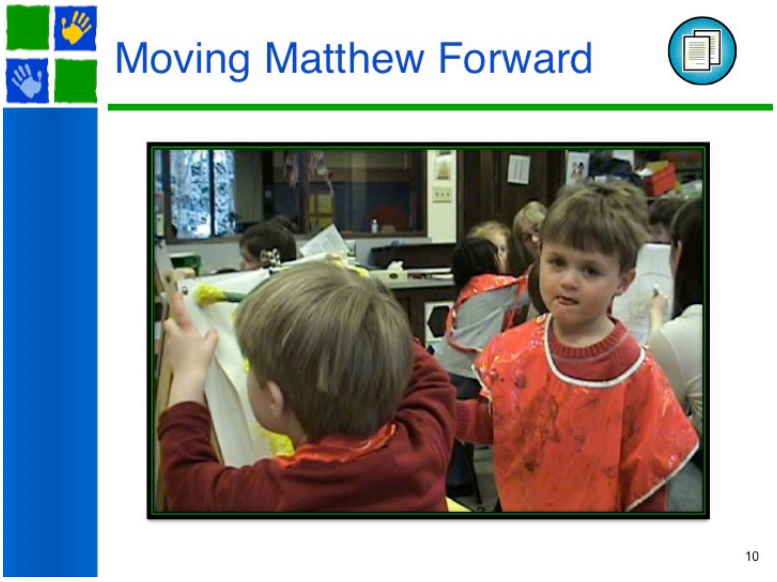
4 Workshops • Module 1: Overview • Module 2: What to Teach & When to Teach • Module 3: How to Teach • Module 4: How to Evaluate	**4 Workshops** • Module 1: Overview • Module 2: What to Teach & When to Teach • Module 3: How to Teach • Module 4: How to Evaluate
Back-home workbook and practice guide	**Back-home workbook and practice guide**
Coaching in classroom	**Self-coaching via website**

8

Notes:


Embedded Instruction
for Early Learning
Tools for Teachers
Thoughts about
Embedded
Instruction
9

Notes:


Moving Matthew Forward
10

Notes:

Moving Matthew Forward

The end of the preschool year is almost here. Cheryl wonders how Matthew's family will react when they learn that he has achieved only two of his eight IEP goals over the past year.

Cheryl is a preschool teacher at Sage Early Learning Center. She has fifteen 3- and 4-year-olds in her classroom. Most children in Cheryl's class are making good progress toward mastering her state's preschool learning foundations. Cheryl is pleased with the growth they have demonstrated on the curriculum-linked assessment tool she uses. Matthew is the one exception. Having tried everything she can think of to keep Matthew moving forward, Cheryl decides to have a meeting with Matthew's IEP team. She is hoping they might have suggestions for how to help get Matthew back on track, particularly for next year, which will be his last year in preschool.

At the team meeting, Cheryl describes that she sets aside 10 to 15 minutes each day to work individually with Matthew on his IEP objectives. In addition, Mary, the speech-language therapist, noted that she works one-on-one 30 minutes, 2 times per week with Matthew in her therapy room just down the hall. Despite this targeted instruction, Matthew still has not made progress on many of his IEP objectives. In fact, Matthew does not seem to prefer the one-on-one time. For example, he often pushes away the blocks that Cheryl asks him to play with or refuses to name the picture cards Mary shows him during speech therapy.

Matthew's mother asks how he keeps up with other children and activities in the classroom when they play outside, eat, or go to activity centers. Cheryl describes that Matthew typically does not join most activities and prefers to play alone or watch others. Cheryl states that she tries to include Matthew in the everyday activities in the classroom, but really is at a loss about how to do this. Melissa, the occupational therapist, says she is confident that what is needed is a new approach to help move Matthew forward. He needs an approach that can help increase the number of opportunities Matthew has to learn skills. The skills will help him be more engaged and participative in everyday learning activities. Perhaps Matthew's IEP goals and objectives should be more functional.

Melissa suggests the team, including Matthew's family, might focus on identifying what skills Matthew needs to be engaged and participative in everyday activities. Opportunities to practice skills could be embedded as part of the activity or routine. For example, Cheryl and Matthew's mom would like Matthew to help during mealtimes, but Matthew does not seem to understand concepts about how objects are related in space. For example, he does not appear to understand what words like "top" and "bottom" mean. Rather than learning to put an object "on top" of another by stacking 10 blocks during one-on-one time (his current IEP objective), maybe Matthew could put a bowl "on top" of a napkin during snack time and put blocks on top of each other during center time. The team decides they like this idea. They need to find a better way to help keep Matthew on track and to make the most of Matthew's everyday learning opportunities in class and at home. There must be a better way!

Initial Ideas about Embedded Instruction

Think about the following questions and jot down your initial ideas. Then, after discussing the questions with your group, you can add others' ideas to the right-hand column.

Questions	Your Initial Ideas	Ideas You Heard from Others
What approach is the IEP team, including Cheryl, currently using with Matthew?		
Why might this approach not be working well for keeping Matthew on track?		
The occupational therapist suggests a "new" approach. What are several key features of this approach?		
What are your initial thoughts about this approach for helping move Matthew forward?		
What would Cheryl (and the team) need to do if they wanted to use this approach?		


Initial Questions
What approach is the IEP team, including Cheryl, currently using with Matthew?
Why might this approach not be working well for keeping Matthew on track?
The occupational therapist suggests a "new" approach. What are several key features of this approach?
What are your initial thoughts about this approach for helping move Matthew forward?
What would Cheryl (and the team) need to do if they wanted to use this approach?
11

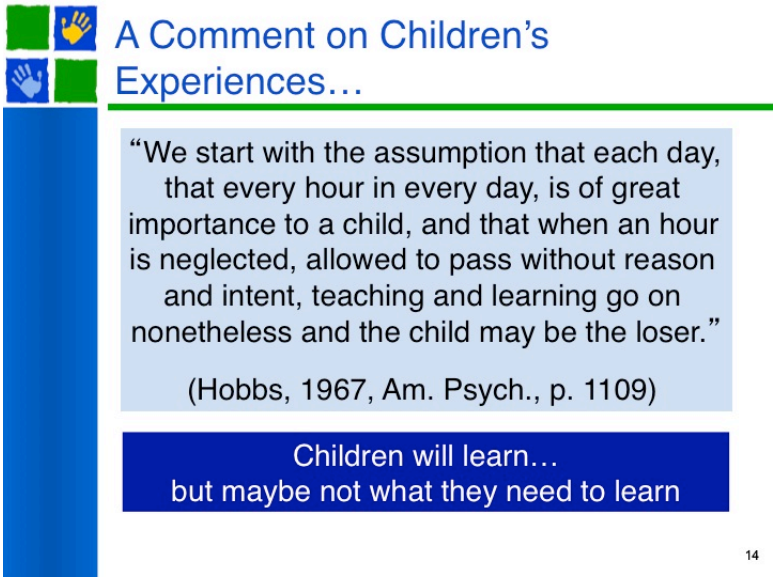
Notes:


After completing Module 1, you will be able to:
Identify reasons for using embedded instruction
Define embedded instruction and identify its key features
Describe What to Teach, When to Teach, How to Teach, and How to Evaluate embedded instruction practices
Describe how embedded instruction supports children's access to and participation in the general preschool curriculum by focusing on intentional teaching and individualized priority learning targets
Define and describe components of complete and incomplete learning trials
12

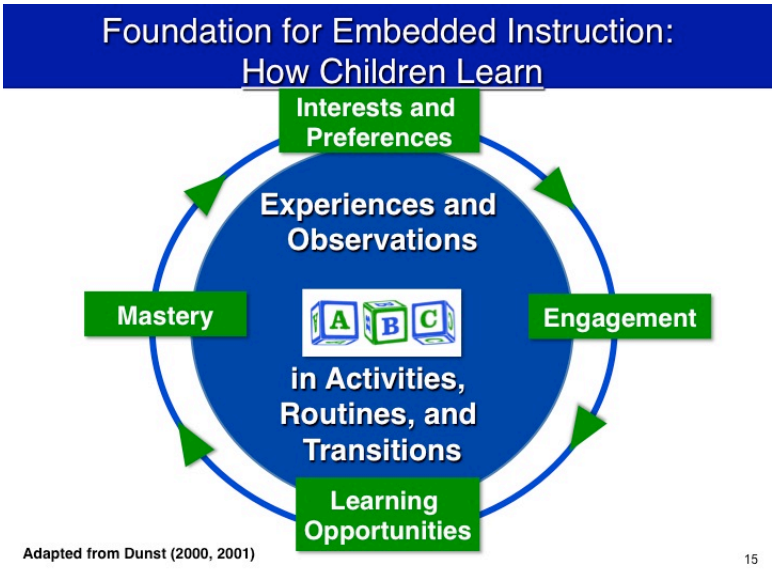
Notes:


Embedded Instruction for Early Learning
Tools for Teachers
Embedded Instruction in Early Learning Settings
Helping Children Learn
13

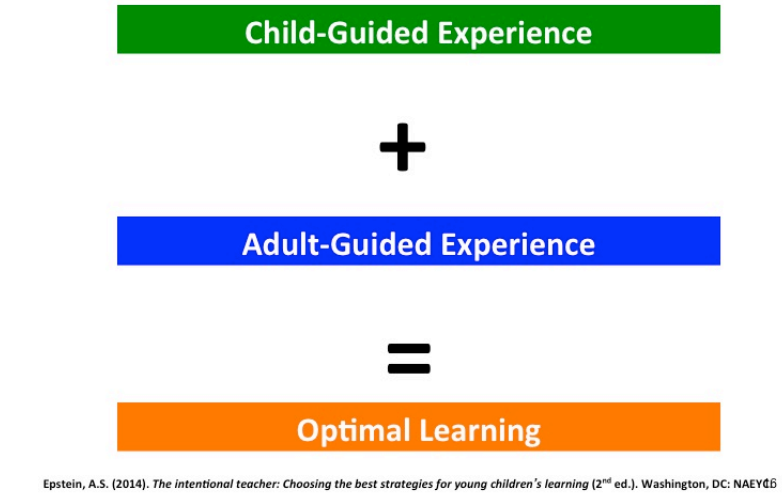
Notes:


A Comment on Children's Experiences…
"We start with the assumption that each day, that every hour in every day, is of great importance to a child, and that when an hour is neglected, allowed to pass without reason and intent, teaching and learning go on nonetheless and the child may be the loser."
(Hobbs, 1967, Am. Psych., p. 1109)
Children will learn…
but maybe not what they need to learn
14

Notes:


Foundation for Embedded Instruction:
How Children Learn
Interests and Preferences
Experiences and Observations
Mastery
Engagement
in Activities, Routines, and Transitions
Learning Opportunities
Adapted from Dunst (2000, 2001)
15

Notes:


Child-Guided Experience
+
Adult-Guided Experience
=
Optimal Learning
Epstein, A.S. (2014). The intentional teacher: Choosing the best strategies for young children's learning (2nd ed.). Washington, DC: NAEYC

Notes:

Intentional Teaching

- Clearly defined learning objectives
- Play- or activity-based
- Instructional strategies likely to help children achieve learning objectives
- Continually assess progress and adjust strategies based on assessment

17

Notes:

What is Embedded Instruction?

Multi-component approach to provide intentional and systematic instruction on priority learning targets during typically occurring activities, routines, and transitions to support child engagement and learning

18

Notes:

Key Words from the Definition

- ***intentional*** and ***systematic instruction***
- ***priority learning targets***
- ***activities, routines,*** and ***transitions***
- ***engagement*** and ***learning***

19

Notes:

Key Features of Embedded Instruction

- Address priority skills
- Teach skills in context
- Teach within and across activities, routines, and transitions
- Use "authentic" activities and materials to support learning
- Use intentional and systematic instruction

20

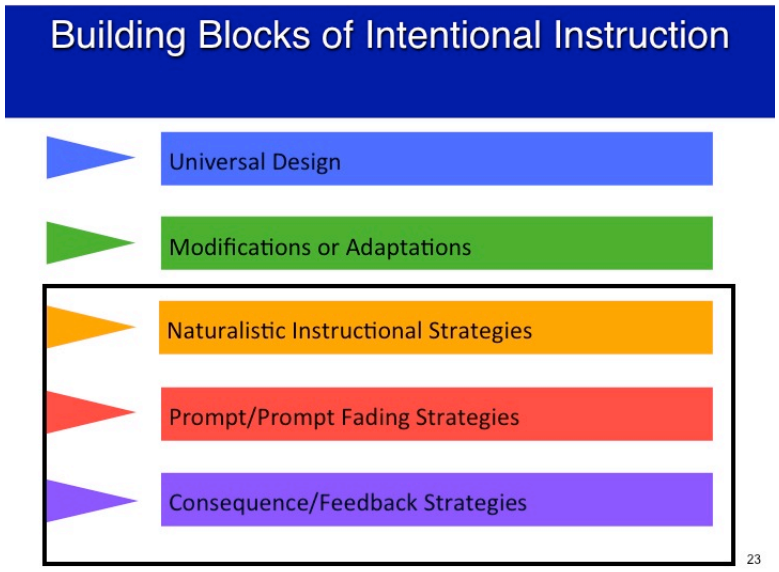
Notes:


Why Use Embedded Instruction?
Helps meet children's individualized learning needs by identifying priority learning targets
Maximizes children's motivation by considering their interests and preferences
Provides opportunities to learn and practice important skills in meaningful contexts
Promotes learning
Acquisition
Fluency
Promotes mastery
Generalization
Maintenance
Adaptation
21

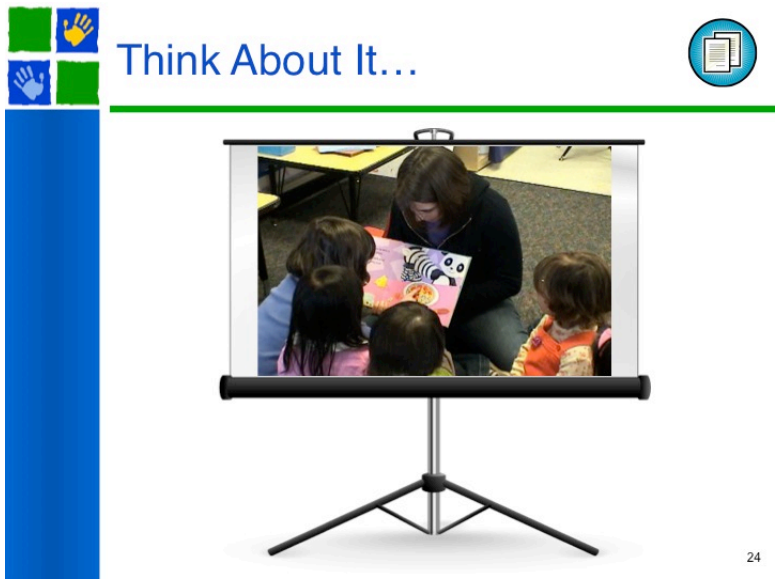
Notes:


Emphasis on Instruction
Emphasizes intentional, sufficient, and systematic learning opportunities during everyday activities, routines, and transitions
Identifies instructional procedures to be used within or across activities, routines, and transitions
22

Notes:


Building Blocks of Intentional Instruction
Universal Design
Modifications or Adaptations
Naturalistic Instructional Strategies
Prompt/Prompt Fading Strategies
Consequence/Feedback Strategies
23

Notes:


Think About It…
24

Notes:

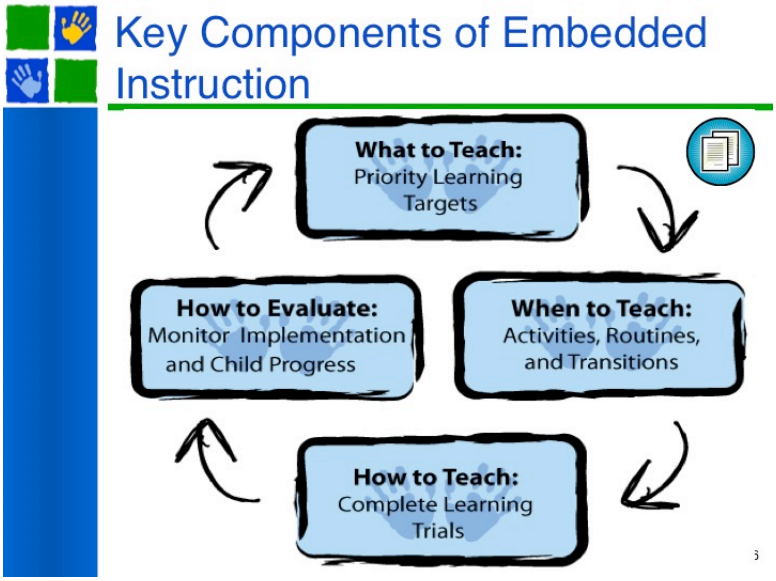
Helping Children Learn in Everyday Activities

Watch the video and write down your observations. What did the teacher do that appears intentional and systematic?

What was happening?	What did the teacher do?
Example 1	
Example 2	
Example 3	
Example 4	
Example 5	
Example 6	


Embedded Instruction
for Early Learning
Tools for Teachers
Getting Started
Embedded Instruction
for Early Learning
25

Notes:


Key Components of Embedded Instruction
What to Teach:
Priority Learning Targets
When to Teach:
Activities, Routines, and Transitions
How to Teach:
Complete Learning Trials
How to Evaluate:
Monitor Implementation and Child Progress

Notes:

Key Embedded Instruction Practices

What to Teach
1. Develop and implement activities that are designed to support the engagement and learning of all children. 2. Obtain information about children's skills in activities, routines, and environments (activity-focused assessment) and use it to inform priority instructional learning targets. 3. Break down larger goals to identify the behavior or skill I would like the child to achieve in the next few weeks and ensure alignment with general preschool curricular content. 4. Write developmentally appropriate; functional and aligned; generative; observable and measurable (i.e., conditions and criteria specified) priority learning targets.
When to Teach
5. Select which activities, routines, and transitions are logical and appropriate for embedded instruction given a specified instructional target. 6. Plan which and how many instructional learning trials to embed within and across activities, routines, and transitions. 7. Develop an activity matrix to record when I plan to embed instructional learning trials for individual children.
How to Teach
8. Use systematic instructional strategies with fidelity to teach skills and promote child engagement and learning. 9. Implement instructional learning trials that include (a) an environmental arrangement and/or prompt to elicit the learning target behavior (antecedent), (b) additional help to elicit the learning target behavior if the behavior does not occur, and (c) an appropriate response following the child behavior (consequence). 10. Implement massed, spaced, or distributed instructional learning trials. 11. Implement the frequency, intensity, and duration of instruction needed to address the child's phase and pace of learning.
How to Evaluate
12. Implement strategies to help determine whether I am implementing instructional learning trials with fidelity (i.e., *Am I doing it?*). 13. Implement strategies to help determine if children are making progress on their learning targets (i.e., *Is it working?*). 14. Make data-based decisions about whether changes are needed to my instruction by considering (a) *Am I doing it?* and (b) *Is it working?*

Embedded Instruction Builds on Intentional Teaching

Intentional Teaching	Embedded Instruction
▪ Clearly defined learning objectives	▪ What to Teach
▪ Play- or activity-based	▪ Where and When to Teach
▪ Instructional strategies likely to help children achieve learning objectives	▪ How to teach
▪ Continually assess progress and adjust strategies based on assessment	▪ How to Evaluate

27

Notes:

Embedded Instruction for Early Learning

Tools for Teachers

What to Teach

Developmentally appropriate; functional and aligned; generative; observable and measurable priority learning targets

28

Notes:


Key Practices: What to Teach
1. Develop and implement activities that are designed to support the engagement and learning of all children.
2. Obtain information about children's skills in activities, routines, and environments (activity-focused assessment) and use it to inform priority instructional learning targets.
3. Break down larger goals to identify the behavior or skill for the child to achieve in the next few weeks and ensure alignment with general preschool curricular content.
4. Write developmentally appropriate; functional and alignment; generative; observable and measureable (i.e., conditions and criteria specified) priority learning targets.
29

Notes:


Defining a Term:
Priority Learning Target
A statement of the behavior or skill the child will learn to do
Includes information that will help you design your embedded instruction plan
Behavior or skill specified should be "proximal"
Identify learning targets by:
Activity or routine analysis
Activity- or routines-based assessment
Breaking down "IEP" goal
30

Notes:

Practice 1: Everyday Experiences and Activities as the Foundation for Embedded Instruction




31

Notes:

Practice 1: Defining the Curriculum for ALL Children

"An organized ***framework*** that delineates the ***content*** children are to learn, the ***processes*** through which children achieve the identified curricular goals, what teachers do to help children achieve these goals, the ***contexts*** in which teaching and learning occur, and the strategies used to ***measure progress and document outcomes.***"

National Association for the Education of Young Children (1991)

32

Notes:

Practice 2: Activity-Focused Assessment

Activity Analysis

- Examine classroom activities to identify characteristics, expectations, and **learning opportunities for all children**

Child-Focused Activity Analysis

- Observe a child while engaged in an activity to help identify **priority skills**

33

Notes:

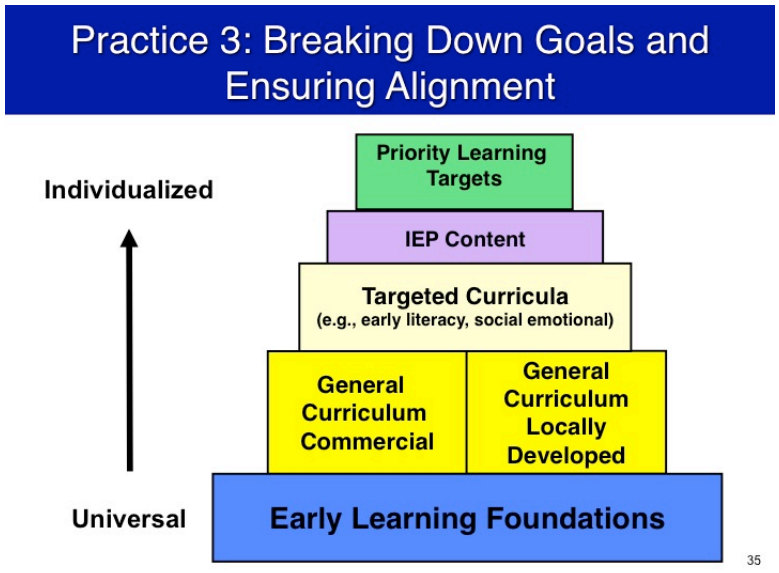
Tools in Your Toolbox

TeachingStrategies® for Early Childhood

IEP Goals and Objectives

34

Notes:

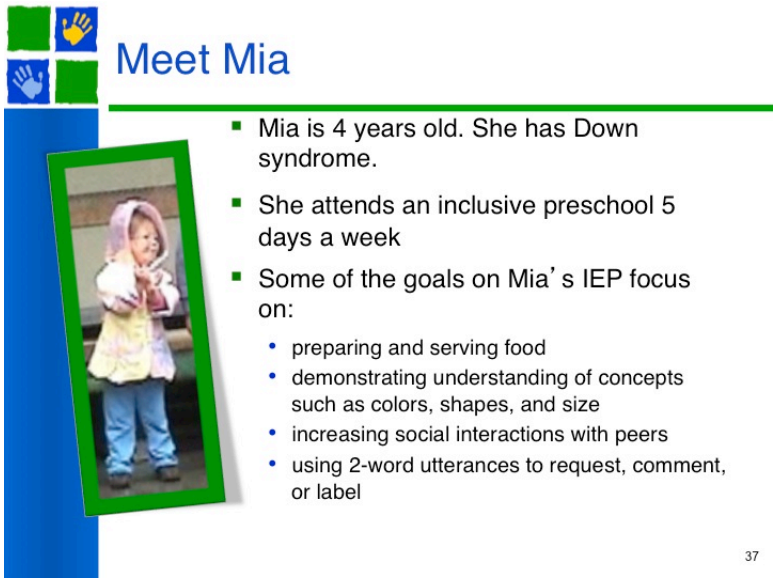

Practice 3: Breaking Down Goals and Ensuring Alignment
Individualized
Universal
Priority Learning Targets
IEP Content
Targeted Curricula
(e.g., early literacy, social emotional)
General Curriculum Commercial
General Curriculum Locally Developed
Early Learning Foundations
35

Notes:

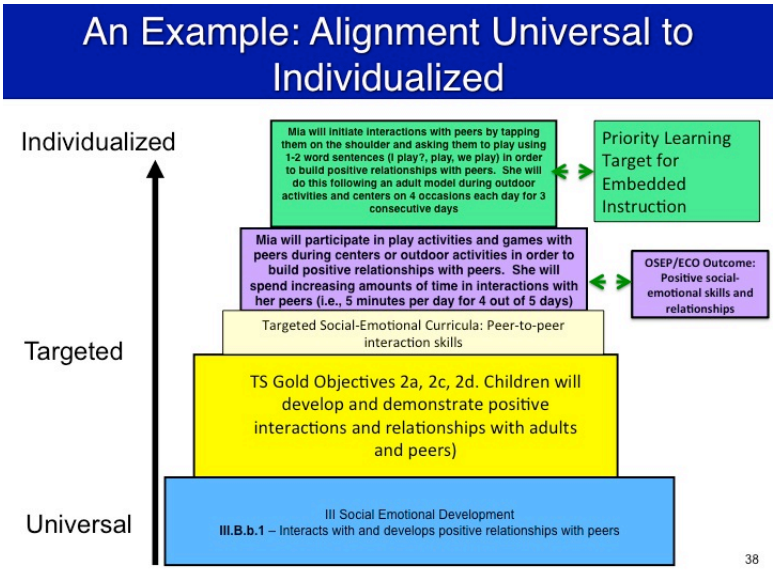
Notes:

FL	FL Early Learning Standards Birth to 5	FL Voluntary Pre-Kindergarten Standards Age 4	TN	TN Early Learning and Dev. Standards Birth to 4	TN Early Learning and Dev. Standards Age 4
Physical development	Fine Motor	Fine Motor	Physical development	Fine Motor	Fine Motor
	Gross Motor	Gross Motor		Gross Motor	Gross Motor
	Self Help	Self Help		Self Help	Self Help
	Health	Health and Wellness		X	Personal Health and Safety
	X	X		X	Sensorimotor
Approaches to Learning	Eagerness and Curiosity	Eagerness and Curiosity	Approaches to Learning	Engages and Interacts	With eagerness and curiosity actively engage in play as a means of exploring and learning
	Persistence	Persistence		Persistence	Demonstrates Persistence
				Problem Solving	Actively engage in Problem Solving
	Creativity and Inventiveness	Creativity		Flexibility and Inventiveness	Approaches Tasks and Activities with Flexibility and Inventiveness
	X	Planning and Reflection		X	X
Social and Emotional Development	Trust and Emotional Security	Relationships (Self/Peer/Adult)	Social Emotional Development	X	Relationships with Adults and Peers
	Self-Concept	X		Self-Awareness (Self-Concept)	Self-Concept
	Self Regulation	Self Regulation (Affective/Life/Adaptive)		Self-Regulation (Self-Control)	Regulate own response to needs, feelings and events
	X	Social Problem Solving		X	X
	X	X		Cooperation	X
	X	X (*See civics ideals*)		X	Understand and follow rules and routines
Communication/ Language and Emergent Literacy	Listening and Understanding	Listening and Understanding	Language and Early Literacy	Receptive Language	Speaking and Listening
	Communicating and Speaking	Speaking		Speech	
		Vocabulary		Expressive Language	Language
		Sentences and Structure			X
		Conversation			X
	Early Reading	Emergent Reading		Reading Foundational Skills	Reading Informational Texts
					Reading Literature
					Reading Foundational Skills
	Early Writing	Emergent Writing		Writing Behaviors and Skills	Writing

FL 0-5	FL Early Learning Standards Birth to 5	FL VPK	FL VPK Age 4	TN 0-4	TN Early Learning and Dev. Standards Birth to 4	TN 4yr.	TN Early Learning and Dev. Standards Age 4
Cognitive Development and General Knowledge	Exploration and Discovery	Scientific Thinking	Investigation and inquiry	Science	Sensory Awareness	Science	Scientific thinking
					Observation and Exploration		
					Problem solving		
					Simple Tools		Tools and Technology
			Physical science		Physical Science		Physical Properties
			Life science		Living Things		Living Things
			Earth and space		X		Earth and Space
			Environmental awareness		X		X
			X		Sequencing and Time		X
	Concept Dev. and Memory	Mathematical Thinking	Number Sense	Mathematical Thinking	Counting and Cardinality	Math	Counting and Cardinality
			Number Operations		Comparing Numbers/ Operations and Algebra		Operation and Algebraic Thinking
			Patterns and Seriation				X
			Geometry		Geometry/Spatial Sense		Geometry
			Spatial Relations				X
			Measurement		Measurements and Data		Measurements and Data
			X		X		X
	Problem Solving and Creative Expression	Creative Expression Through the	Visual Arts	Creative Arts	Art	Creative Arts	Visual Arts
			Music		Music		Music
			Creative Movement and Dance		Dramatic Play and Movement		Creative Movement and Dance
			Dramatic Play and Theater		X		Theatre/Dramatic Play
			X		X		Cultural Differences
	X	Social Studies	Individual Development and Identity	Social Studies	Interactions and Culture	Social Studies	X (*See cultural differences*)
			People, Places, and Environments		History		History
			Technology and Our World		X		X
			Civic Ideals and Practices		X		Civics, Citizenship and Government
			X		X		Economics
			X		X		Career Development


Meet Mia
Mia is 4 years old. She has Down syndrome.
She attends an inclusive preschool 5 days a week
Some of the goals on Mia's IEP focus on:
preparing and serving food
demonstrating understanding of concepts such as colors, shapes, and size
increasing social interactions with peers
using 2-word utterances to request, comment, or label
37

Notes:


An Example: Alignment Universal to Individualized
Individualized
Targeted
Universal
Mia will initiate interactions with peers by tapping them on the shoulder and asking them to play using 1-2 word sentences (I play?, play, we play) in order to build positive relationships with peers. She will do this following an adult model during outdoor activities and centers on 4 occasions each day for 3 consecutive days
Priority Learning Target for Embedded Instruction
Mia will participate in play activities and games with peers during centers or outdoor activities in order to build positive relationships with peers. She will spend increasing amounts of time in interactions with her peers (i.e., 5 minutes per day for 4 out of 5 days)
OSEP/ECO Outcome: Positive social-emotional skills and relationships
Targeted Social-Emotional Curricula: Peer-to-peer interaction skills
TS Gold Objectives 2a, 2c, 2d. Children will develop and demonstrate positive interactions and relationships with adults and peers)
III Social Emotional Development
III.B.b.1 – Interacts with and develops positive relationships with peers
38

Notes:

Let's Look Further at Alignment: Another of Mia's IEP Goals

Mia will label objects using at least one describing word (e.g., color, size) with decreasing adult modeling or prompting. We will know she has met this goal when she uses 10 different describing words during two or more activities and routines as documented in anecdotal notes in her portfolio.

Early Learning Standards:
FL IV.C.2: Shows increased vocabulary to describe many objects, actions, and events; TN LE.37-48.2: Use language for a variety of purposes

TS Gold Objectives:
9a: Uses an expanding expressive vocabulary

39

Notes:

Your turn!

- Mia will use 2-3 word phrases to make requests to obtain toys, materials, or food during classroom activities and routines. We will know Mia has met this goal when she uses 2-3 word phrases for 80% or more of the requests she makes during two or more activities for 3 consecutive days.
  - Early Learning Standard(s)?
  - TS Gold Objective(s)?
- Mia will manipulate a variety of objects and write using different instruments with decreasing adult assistance for hand positioning in order to develop eye-hand coordination and object manipulation skills. We will know Mia has met this goal when she is able to grasp objects of different sizes (diameter 1-4cm; for example, crayon, jug handle) and maintain her grasp without adult support to complete tasks for at least 7 of 10 planned observations for 5 days.
  - Early Learning Standard(s)?
  - TS Gold Objective(s)?

40

Your Turn

Read through each of the IEP goals. Then discuss with a person sitting beside you which of the early learning standards and TS Gold objective(s) are most aligned to the IEP Goals shown.

Mia will use 2-3 word phrases to make requests to obtain toys, materials, or food during classroom activities and routines. We will know Mia has met this goal when she uses 2-3 word phrases for 80% or more of the requests she makes during two or more activities for 3 consecutive days.

- Early Learning Standard(s)?

- TS Gold Objective(s)?

Mia will manipulate a variety of objects and write using different instruments with decreasing adult assistance for hand positioning in order to develop eye-hand coordination and object manipulation skills. We will know Mia has met this goal when she is able to grasp objects of different sizes (diameter 1-4cm; for example, crayon, jug handle) and maintain her grasp without adult support to complete tasks for at least 7 of 10 planned observations for 5 days.

- Early Learning Standard(s)?

- TS Gold Objective(s)?

Practice 4: Writing Quality Learning Targets

- **Developmentally Appropriate**
  Target is age-appropriate, individually appropriate, and culturally relevant
- **Functional and Aligned**
  Child performance of the skill is needed for engagement in important aspects of daily activities, routines, and transitions (access, participation, and membership)
- **Generative**
  Child performance of the skill is useful, adaptable, and portable across settings, people, materials, and events
- **Observable and Measurable**
  Skill is observable, such that it can be counted, timed, or described; the conditions and the criteria for child performance are described

41

Notes:

Embedded Instruction for Early Learning
Tools for Teachers

When to Teach

Ongoing activities, routines, and transitions

42

Notes:

Key Practices: When to Teach

5. Select which activities, routines, and transitions are logical and appropriate for embedded instruction given a specified instructional target.
6. Plan which and how many instructional learning trials to embed within and across activities, routines, and transitions.
7. Develop an activity matrix to record when you plan to embed instructional learning trials for individual children.

43

Notes:

Practice 5: Activities, Routines, and Transitions from Daily Schedule

- Arrival
- Free Play
- Circle time
- Centers
- Snack
- Toileting
- Lunch
- Nap
- Outdoor play
- Story time
- Music/Art
- Departure

44

Notes:

Practices 6 and 7: 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

Step 3: Put the child's learning target in the appropriate activity or activities ("fit")

	Mia	Matthew
Arrival		
Free Play		
Circle	Responds when another child initiates an interaction	
Outside		
Snack		
Class Activity		
Departure		
Transitions	Responds when another child initiates an interaction	

45

Notes:

Considering What to Teach and When to Teach

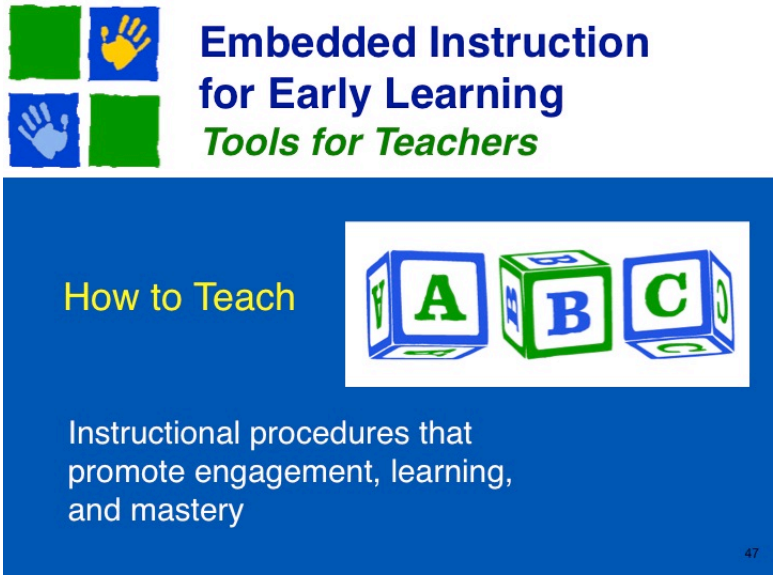
46

Notes:

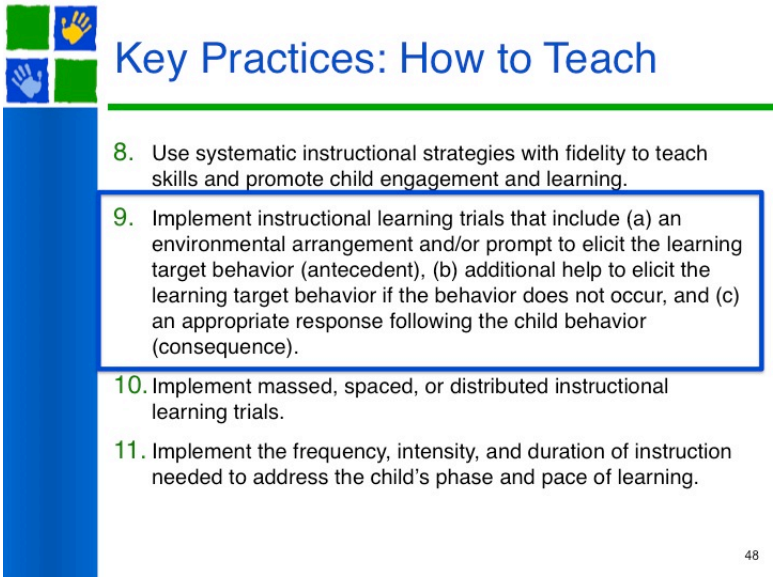
Mia's Everyday Learning Opportunities

Watch the video clips and identify the embedded learning opportunities

Activity, routine, or transition	What learning opportunities are there for all children?	What might the teacher have targeted for Mia to learn during this activity?	Do you see intentional or systematic instruction for Mia during this activity?
Breakfast			
Table Games			
Going Outside			
Outside			
Snack			
Centers			


Embedded Instruction
for Early Learning
Tools for Teachers
How to Teach
A
B
C
Instructional procedures that
promote engagement, learning,
and mastery
47

Notes:


Key Practices: How to Teach
8. Use systematic instructional strategies with fidelity to teach skills and promote child engagement and learning.
9. Implement instructional learning trials that include (a) an environmental arrangement and/or prompt to elicit the learning target behavior (antecedent), (b) additional help to elicit the learning target behavior if the behavior does not occur, and (c) an appropriate response following the child behavior (consequence).
10. Implement massed, spaced, or distributed instructional learning trials.
11. Implement the frequency, intensity, and duration of instruction needed to address the child's phase and pace of learning.
48

Notes:

It's as simple as ABC!

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

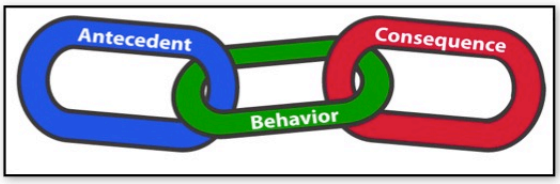
49

Notes:

Complete Learning Trial (CLT)

A logically occurring or planned **A**ntecedent

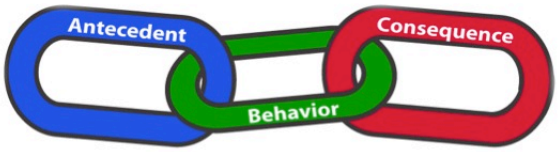
- is followed by a **B**ehavior
  - that leads to a logically occurring or planned **C**onsequence



50

Notes:

Complete Learning Trial



51

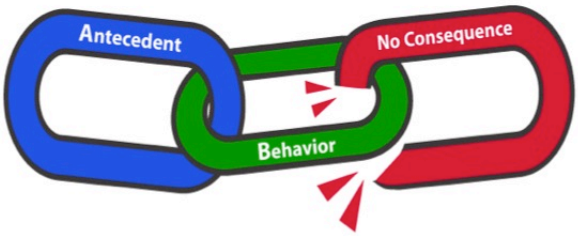
Notes:

Let's Look at an Example

52

Notes:

Incomplete Learning Trial



53

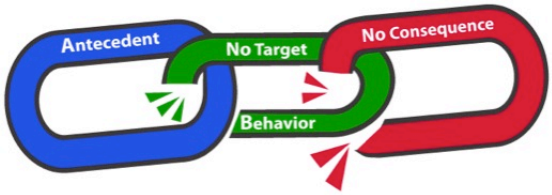
Notes:

Let's Look at an Example

54

Notes:

Another Incomplete Learning Trial



55

Notes:

Let's Look at an Example

56

Notes:

Another Complete Learning Trial

57

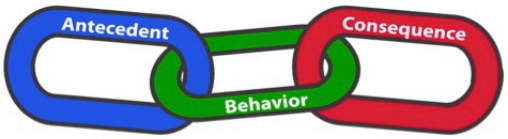
Notes:

Let's Look at an Example

58

Notes:

Complete Learning Trials



59

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

60

Notes:

Embedded Instruction for Early Learning
Tools for Teachers

How to Evaluate

Gathering data to make informed decisions

61

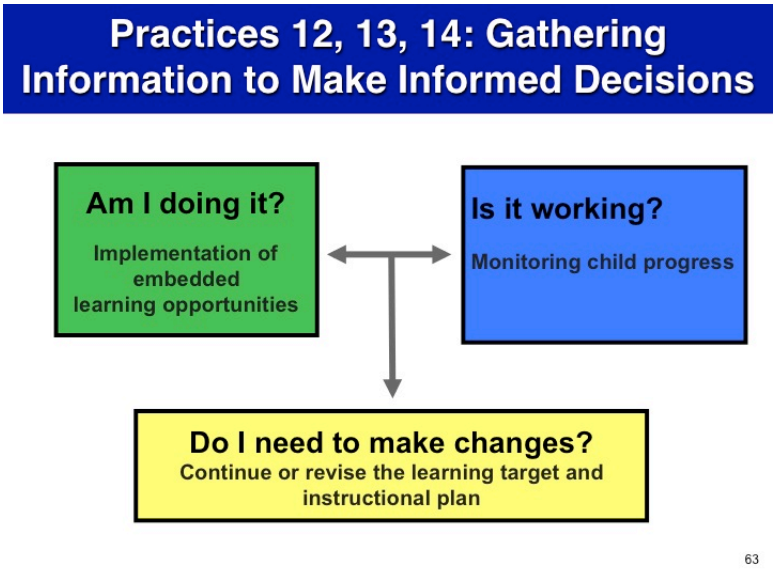
Notes:

Key Practices: How to Evaluate

12. Implement strategies to help determine whether I am implementing instructional learning trials with fidelity (i.e., *Am I doing it?*).
13. Implement strategies to help determine if children are making progress on their learning targets (i.e., *Is it working?*).
14. Make data-based decisions about whether changes are needed to my instruction by considering (a) *Am I doing it?* and (b) *Is it working?*

62

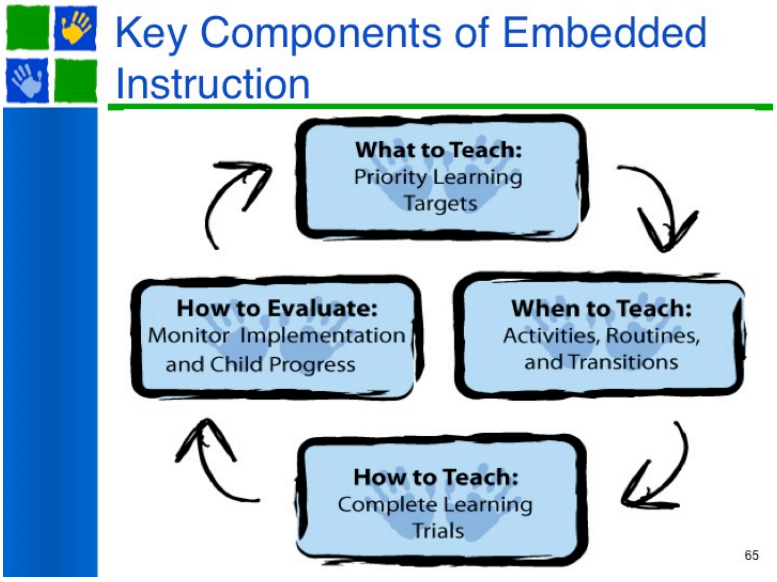
Notes:


Practices 12, 13, 14: Gathering Information to Make Informed Decisions
Am I doing it?
Implementation of embedded learning opportunities
Is it working?
Monitoring child progress
Do I need to make changes?
Continue or revise the learning target and instructional plan
63

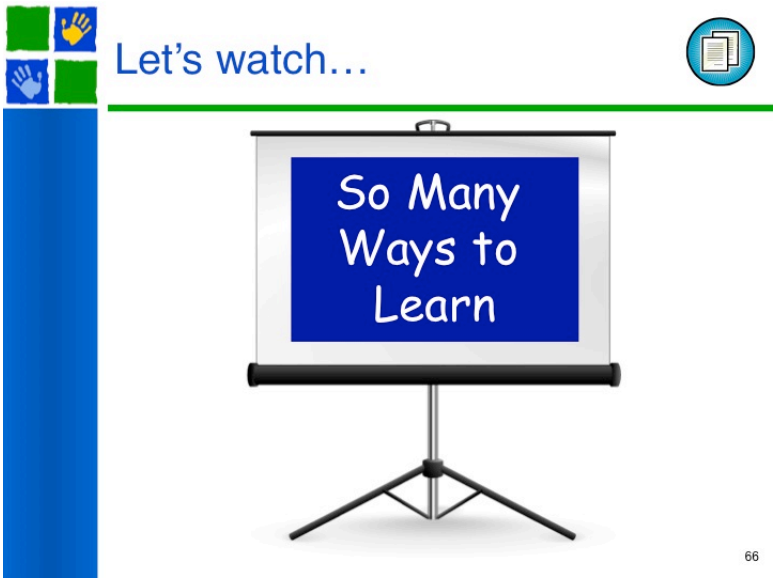
Notes:


Embedded Instruction for Early Learning
Tools for Teachers
Wrap-Up
64

Notes:


Key Components of Embedded Instruction
What to Teach:
Priority Learning Targets
When to Teach:
Activities, Routines, and Transitions
How to Teach:
Complete Learning Trials
How to Evaluate:
Monitor Implementation and Child Progress
65

Notes:


Let's watch…
So Many Ways to Learn
66

Notes:

So Many Ways to Learn

Write down a few of the activities you see in the video. After the video, jot down your ideas about what all children might be learning in these activities. How can you design these activities to support learning for children that need additional support?

Activity, routine, or transition	What learning opportunities are there for all children during this activity?	How could this activity support learning for children that need additional support?

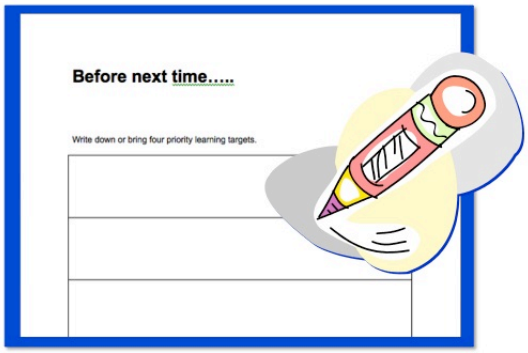
Needs Assessment

Embedded Instruction for Early Learning Practices

67

Notes:

Before next time…..



Notes:

Before next time…

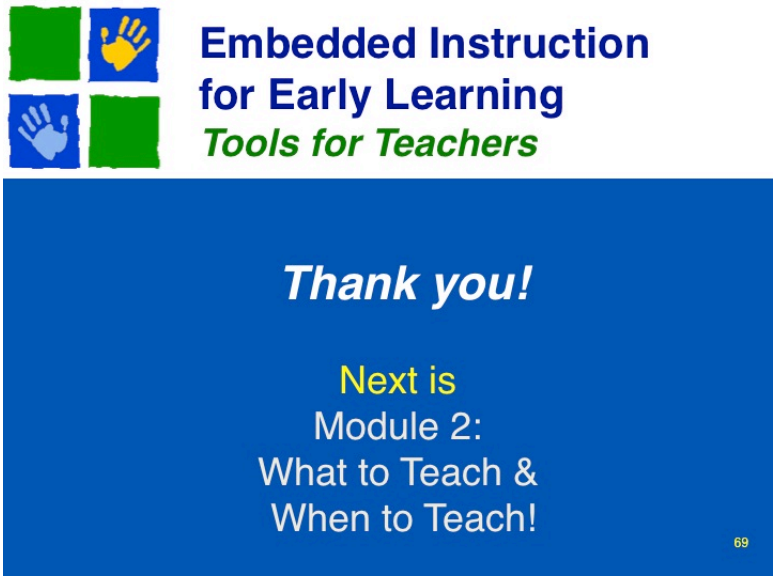
Write down or bring four priority learning targets for each target child.

Child 1
Child 2
Child 3

Write down your daily schedule

Think about the activities, routines, and transitions that typically occur in your class each day and the approximate times these occur.

My Daily Schedule	
Activity, Routine, or Transition	Approximate Time this Occurs


Embedded Instruction
for Early Learning
Tools for Teachers
Thank you!
Next is
Module 2:
What to Teach &
When to Teach!
69

Notes:

Notes:

Practice Guide: Introduction

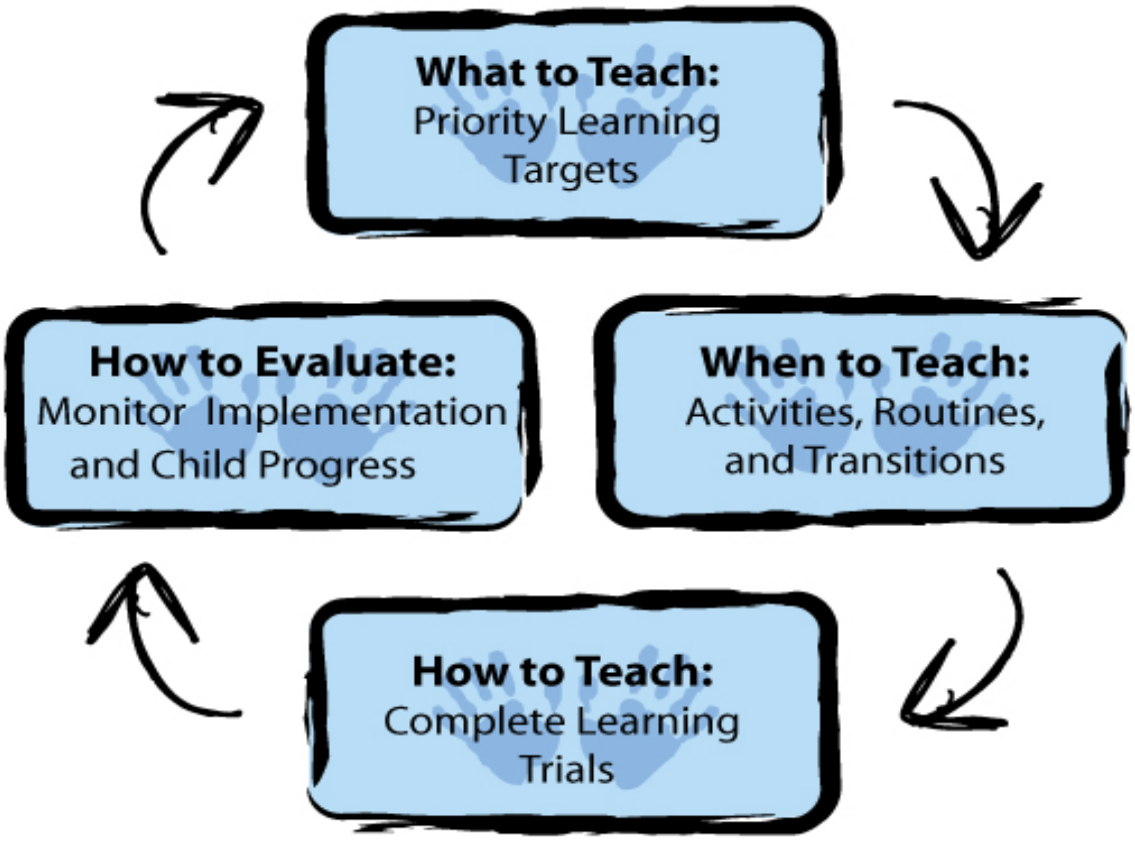
What is Embedded Instruction?

- ❑ An approach to instruction that promotes child engagement and learning in everyday activities, routines, and transitions.
- ❑ 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.*

To identify when to embed instruction, we must consider what the child knows or can do with respect to what the child needs to learn or do to participate meaningfully in activities, routines, and transitions. We must also consider the developmentally appropriate tasks that are part of these activities, routines, and transitions.

Our approach to embedded instruction emphasizes the use of complete learning trials (i.e., antecedent, behavior, and consequence sequences) to ensure that sufficient, systematic, and intentional learning opportunities are provided in the context of everyday activities, routines, and transitions so the child learns skills that will support access, participation, and membership in early learning contexts. (Snyder, Hemmeter, McLean, Sandall, & McLaughlin, 2013).

Embedded Instruction Focuses on:



This *Practice Guide* will help you learn more about embedded instruction and how it can be used in your classroom

Key Embedded Instruction Practices

There are 14 key teaching practices associated with What to Teach, When to Teach, How to Teach, and How to Evaluate:

What to Teach

1. Develop and implement activities that are designed to support the engagement and learning of all children.
2. Obtain information about children's skills in activities, routines, and environments (activity-focused assessment) and use it to inform priority instructional learning targets.
3. Break down larger goals to identify the behavior or skill I would like the child to achieve in the next few weeks and ensure alignment with general preschool curricular content.
4. Write developmentally appropriate; functional and aligned; generative; observable and measurable (i.e., conditions and criteria specified) priority learning targets.

When to Teach

5. Select which activities, routines, and transitions are logical and appropriate for embedded instruction given a specified instructional target.
6. Plan which and how many instructional learning trials to embed within and across activities, routines, and transitions.
7. Develop an activity matrix to record when I plan to embed instructional learning trials for individual children.

How to Teach

8. Use systematic instructional strategies with fidelity to teach skills and promote child engagement and learning.
9. Implement instructional learning trials that include (a) an environmental arrangement and/or prompt to elicit the learning target behavior (antecedent), (b) additional help to elicit the learning target behavior if the behavior does not occur, and (c) an appropriate response following the child behavior (consequence).
10. Implement massed, spaced, or distributed instructional learning trials.
11. Implement the frequency, intensity, and duration of instruction needed to address the child's phase and pace of learning.

How to Evaluate

12. Implement strategies to help determine whether I am implementing instructional learning trials with fidelity (i.e., *Am I doing it?*).
13. Implement strategies to help determine if children are making progress on their learning targets (i.e., *Is it working?*).
14. Make data-based decisions about whether changes are needed to my instruction by considering (a) *Am I doing it?* and (b) *Is it working?*

These practices are reviewed briefly in this *Practice Guide*, and will be covered in more detail in Modules 1, 2, and 3.

Embedded Instruction is an Evidence-Based Practice

Embedded instruction is a recommended and evidence-based practice in early childhood. As part of our project, we reviewed the existing research on embedded instruction. We found 43 studies had been conducted in preschool settings focused on embedded instruction approaches (Snyder et al., 2015). Two hundred and eleven (211) children participated in these studies and 98% of these children learned new skills when instruction was embedded during classroom activities, routines, or transitions.

Research and practice tell us that use of embedded instruction can:

- Maximize children's motivation by considering their interests and preferences
- Maximize children's learning by teaching the skills where and when they are needed
- Help children master, maintain, and adapt the skills/behaviors they learn
- Promote generalization of learned skills/behaviors across people, activities, and materials

We know embedded instruction can work. Here is some of what we know from the embedded instruction research literature.

1. Embedded instruction is effective for teaching a variety of valued skills to young children.

2. A variety of intentional and systematic instructional strategies have been used effectively to provide embedded instruction.

3. Embedded instruction seems to enhance generalization.

4. Teachers assess embedded instruction favorably.

5. Teachers differ in the extent to which they can apply embedded instruction in their activities and classrooms.

The list of the 43 studies we reviewed related to embedded instruction is included in the reference list at the end of this practice guide.

Embedded Instruction is a Recommended Practice

Embedded instruction is a recommended practice according to the Division for Early Childhood's Recommended Practices (DEC, 2014). Recommended practices were identified through a review of the research literature and in conjunction with the professional knowledge and wisdom of the field. The specific recommended practice that is relevant to *Tools for Teachers* is as follows:

Recommended Practice INS5:

> Practitioners embed instruction within and across routines, activities, and environments to provide contextually relevant learning opportunities (DEC, 2014).

The key teaching practices associated with embedded instruction are also aligned with a number of other DEC Recommended Practices related to instruction and assessment. The DEC Recommended Practices are available online at the following web address:

http://www.dec-sped.org/recommendedpractices

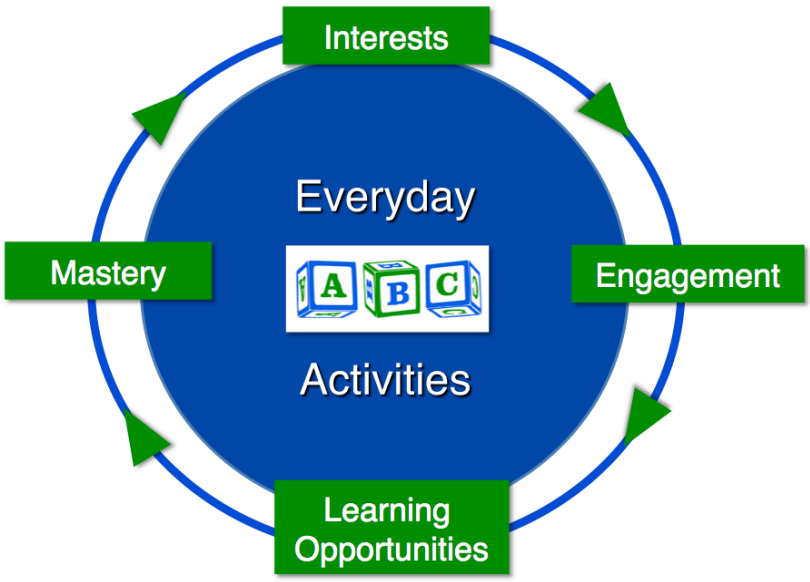
The Division for Early Childhood** of the **Council for Exceptional Children

Embedded instruction supports children's learning during everyday activities and routines, using intentional and systematic instructional procedures.

How Does Embedded Instruction Promote Learning?

The everyday experiences of young children can either promote or impede learning and development (Bronfenbrenner, 1992; Hobbs, 1967). Research shows that young children's learning and development is more meaningful when everyday activities are the foundation for learning opportunities.

How Children Learn



(Adapted from Dunst et al., 2000; Dunst et al., 2001)

As the figure shows, children's interests in everyday activities engage them in social and nonsocial interactions, which provide them opportunities to practice skills and learn new behaviors. Repeated practice leads to mastery. Increased mastery, in turn, strengthens children's interests, setting the learning cycle into motion once again.

Children with disabilities may need additional support for engagement, learning opportunities, and mastery within the context of everyday learning activities. To provide this additional support, we can use a variety of intentional and systematic instructional procedures that support A-B-C sequences (i.e., complete learning trials). By doing so, we ensure intentional, sufficient, and systematic instruction within and across everyday activities, routines, and transitions.

Complete Learning Trials
ensure *intentional* and *systematic* instruction
within and across everyday activities, routines, and transitions

Why Use Embedded Instruction?

Embedded instruction is used to meet children's needs by providing opportunities to learn and practice important skills in meaningful contexts. Instruction can occur during ongoing classroom activities, routines, and transitions as part of the curriculum for all children.

Key features of embedded instruction:

- Addresses functional skills – skills that young children need to learn to support their access, participation, and membership in an early learning classroom
- Teaches skills in context – skills are taught in the contexts in which they are needed
- Teaches within and across activities, routines, and transitions
- Uses "authentic" activities and materials to support learning
- Uses intentional and systematic instruction

Embedded instruction is useful during each phase of learning:

- ✓ **Acquisition**
- ✓ **Fluency**
- ✓ **Maintenance**
- ✓ **Generalization**
- ✓ **Adaptation**

Key benefits of embedded instruction:

- Maximizes children's motivation by considering their interests and preferences
- Maximizes children's learning by teaching in settings where and when the skills are needed
- Helps children master, maintain, and adapt the skills/behaviors they learn
- Promotes generalization of learned skills/behaviors across people, activities, and materials

Getting Started

How Do I Get Started with Embedded Instruction?

Anyone can use embedded instruction. Throughout this professional development, you will gain the knowledge and experience you need to use embedded instruction successfully in your classroom. It is likely that you are already using some of the key embedded instruction practices. This professional development has been designed to help you learn about and use all the key embedded instruction practices and to ensure you provide a sufficient number of embedded learning opportunities for young children across classroom activities, routines, and transitions.

We recommend you use this practice guide to help support your application of embedded instruction. To get started, select a child in your classroom and begin!

First you will need to make decisions about **'What to Teach'.**

- Use this guide to ensure your IEP goals or priority learning targets are linked with early learning standards and the general preschool curriculum.
- Use this guide to identify learning targets that are developmentally appropriate, functional and aligned, generative, observable and measurable.

Second you will need to make decisions about **'When to Teach'**.

- Use this guide to start building an embedded instruction activity matrix by identifying key activities, routines, and transitions in your daily classroom schedule.
- You will learn more about this during Module 2: What to Teach and When to Teach.

Third you will need to make decisions about **'How to Teach'**.

- Use this guide to learn about intentional and systematic instructional procedures and complete learning trials.
- You will learn more about this during Module 3: How to Teach.

Finally, you will need to make decisions about **'How to Evaluate'**.

- Think about how you collect data on student learning in your classroom.
- You will learn more about this during the Module 4: How to Evaluate.

Case Study: Moving Matthew Forward

Remember Matthew?

The end of the preschool year is almost here. Cheryl wonders how Matthew's family will react when they learn that he has achieved only two of his eight IEP goals over the past year.

Cheryl is a preschool teacher at Sage Early Learning Center. She has fifteen, 3- and 4-year-olds in her classroom. Most children in Cheryl's class are making good progress toward mastering her state's preschool learning foundations. Cheryl is pleased with the growth they have demonstrated on the curriculum-linked assessment tool she uses. Matthew is the one exception. Having tried everything she can think of to keep Matthew moving forward, Cheryl decides to have a meeting with Matthew's IEP team. She is hoping they might have suggestions for how to help get Matthew back on track, particularly for next year, which will be his last year in preschool.

At the team meeting, Cheryl describes that she sets aside 10 to 15 minutes each day to work individually with Matthew on his IEP objectives. In addition, Mary, the speech-language therapist, noted that she works 30 minutes, 2 times per week one-on-one with Matthew in her therapy room just down the hall. Despite this targeted instruction, Matthew still has not made progress on many of his IEP objectives. In fact, Matthew does not seem to prefer the one-on-one time. For example, he often pushes away the blocks that Cheryl asks him to play with or refuses to name the picture cards Mary shows him during speech therapy.

Matthew's mother asks how he keeps up with other children and activities in the classroom when they play outside, eat, or go to activity centers. Cheryl describes that Matthew typically does not join most activities and prefers to play alone or watch others. Cheryl states that she tries to include Matthew in the everyday activities in the classroom, but really is at a loss about how to do this. Melissa, the occupational therapist, says she is confident that what is needed is a new approach to help move Matthew forward. He needs an approach that can help increase the number of opportunities Matthew has to learn skills. The skills that will help him be more engaged and participative in everyday learning activities. Perhaps Matthew's IEP goals and objectives should be more functional.

Melissa suggests the team, including Matthew's family, might focus on identifying what skills Matthew needs to be engaged and participative in everyday activities. Opportunities to practice skills could be embedded as part of the activity or routine. For example, Cheryl and Matthew's mom would like Matthew to help during mealtimes, but Matthew does not seem to understand concepts about how objects are related in space. For example, he does not appear to understand what words like "top" and "bottom" mean. Rather than learning to put an object "on top" of another by stacking 10 blocks during one-on-one time (his current IEP objective), maybe Matthew could put a bowl "on top" of a napkin during snack time and put blocks on top of each other during center time. The team decides they like this idea. They need to find a better way to help keep Matthew on track and to make the most of Matthew's everyday learning opportunities in class and at home. There must be a better way!

Throughout this guide, we will use Matthew to illustrate the embedded instruction approach.

What to Teach

Developmentally appropriate; functional and aligned; generative; observable and measurable priority learning targets

What to Teach: Key Practices

1. Develop and implement activities that are designed to support the engagement and learning of all children.

2. Obtain information about children's skills in activities, routines, and environments (activity-focused assessment) and use it to inform priority instructional learning targets.

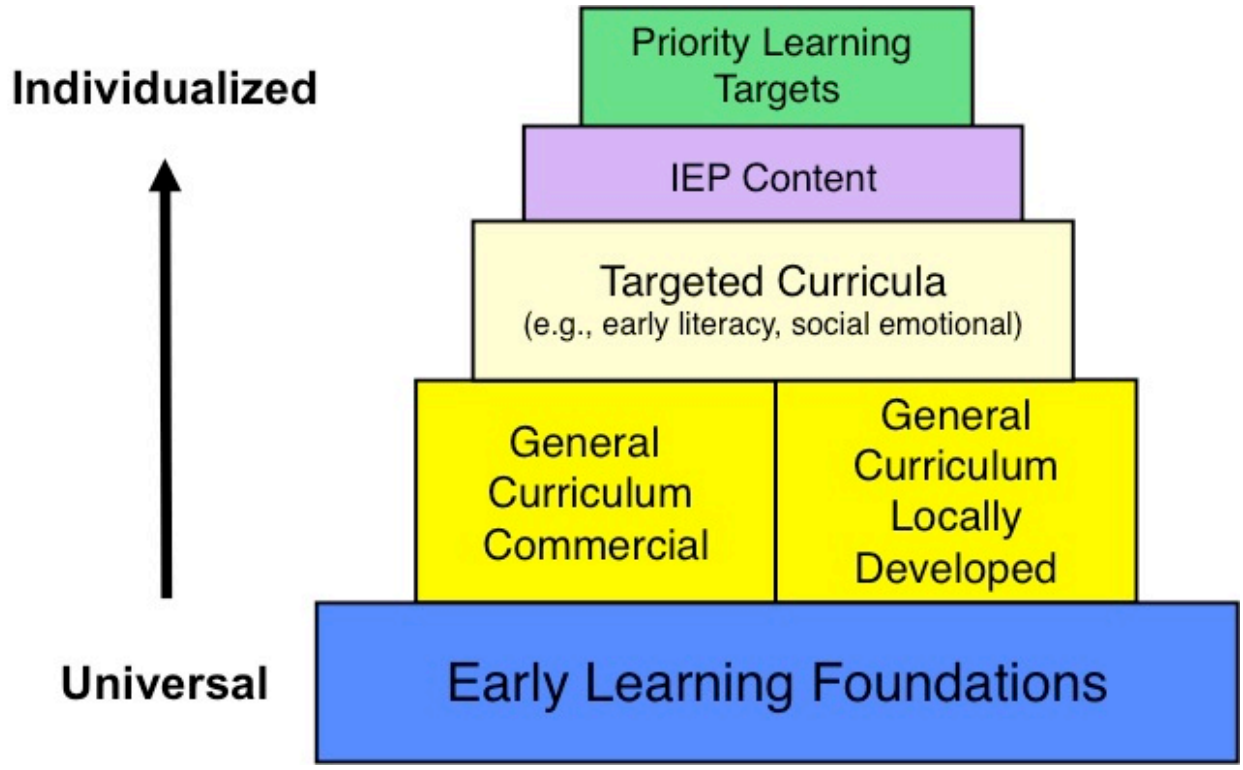
3. Break down larger goals to identify the behavior or skill I would like the child to achieve in the next few weeks and ensure alignment with general preschool curricular content.

4. Write developmentally appropriate; functional and aligned; generative; observable and measurable (i.e., conditions and criteria specified) priority learning targets.

Strengthening the Link between the Early Learning Standards, General and Targeted Curricula, IEP Goals, and Priority Learning Targets

Teachers, other team members, and families systematically identify everyday activities, routines, and transitions and the developmentally appropriate tasks that are part of them.

Consideration is given to ***what the child knows or can do*** and ***what the child needs to learn or do to participate meaningfully*** in these naturally occurring activities, routines, and transitions.

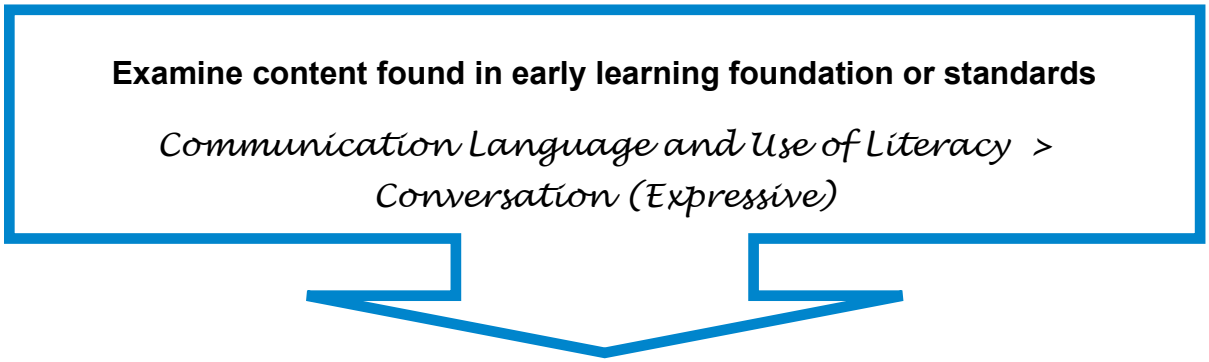


When getting started with embedded instruction, it is important that the child's priority learning targets align with universal early learning foundations.

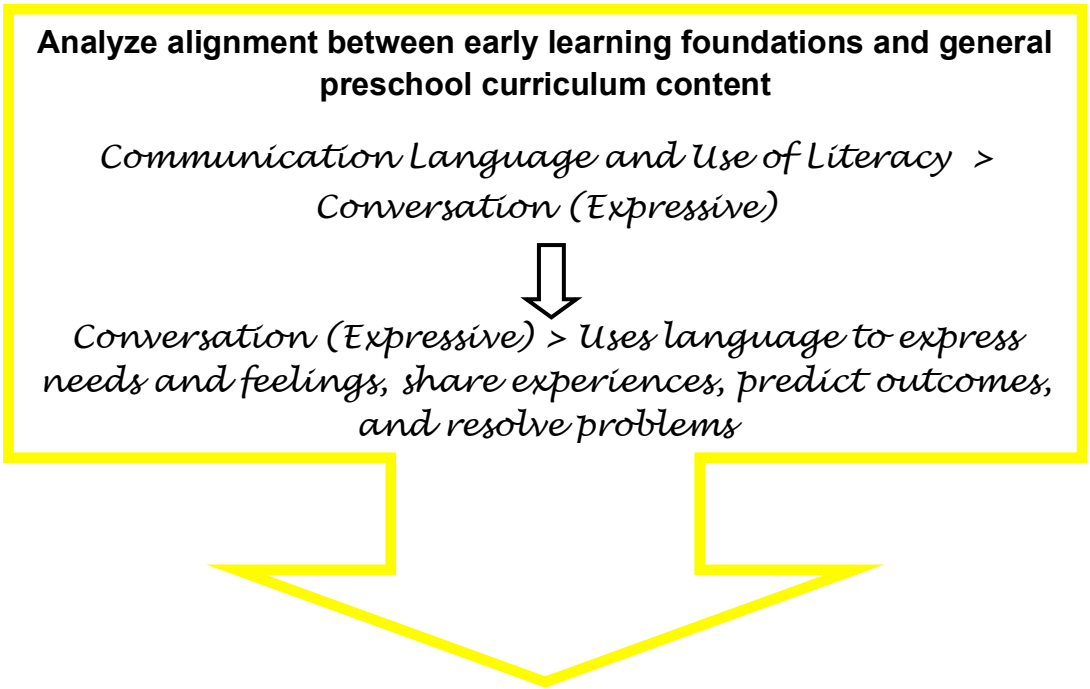
What children should know or what they should do is often reflected in early learning guidelines and early childhood curricula. What all children need to learn to participate meaningfully in everyday activities, routines, and transitions informs the development of individualized goals or priority learning targets for children with special learning needs.

Let's Walk Through this Process

Step 1: What is it that we believe all young children should know or be able to do? Your state, school district, or early learning program is likely to have early learning foundations or standards.



Step 2: Use early learning foundations or standards to identify how the content of your general preschool curriculum aligns with this content. You may be using a commercial general preschool curriculum or a locally developed one.



Step 3: What targeted curricular content are you focusing on with children in your classroom during the on-going activities, routines, and transitions?

Identify how targeted curricular content relates to the general curriculum and early learning foundations

Conversation (Expressive) > Uses language to express needs and feelings, share experiences, predict outcomes, and resolve problems

⇩

Ladders to Literacy ©

Step 4: Review the child's individualized educational program (IEP) to identify the child's strengths and needs identified by the team. Identify how curricular content individualized for a child aligns with or links to the general or targeted curricular content

Link to IEP content

Increase expressive communication skills

Step 5: Consider steps 1 through 4 above and write a developmentally appropriate; functional and aligned; generative; and observable and measurable priority learning target for the child that aligns or links to classroom curricular content.

Priority Learning Target for Child

The child will use 2-3 word phrases to request objects, people, or materials with at least 2 adults and 2 peers across a variety of classroom activities on at least 2 occasions each day for 5 consecutive days.

Now you try!

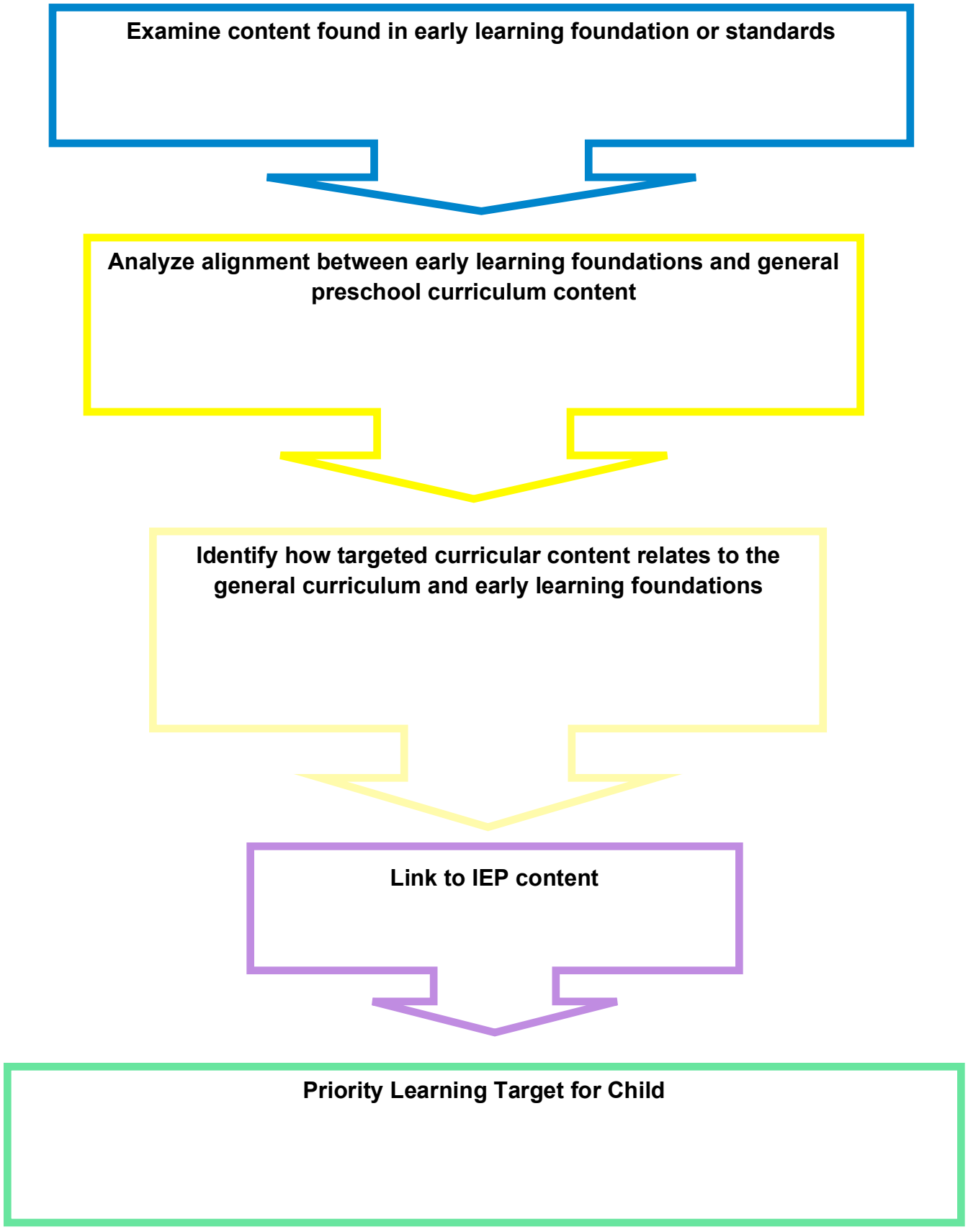

Examine content found in early learning foundation or standards
Analyze alignment between early learning foundations and general preschool curriculum content
Identify how targeted curricular content relates to the general curriculum and early learning foundations
Link to IEP content
Priority Learning Target for Child

Illustration: Painting a Rainbow

Embedding Instruction in High Quality Activities

Below is an example of how to embed instruction for Matthew in a high quality early learning curricular activity.

Painting a Rainbow: Activity for All Children

Retrieved from: https://gold.teachingstrategies.com/gold/teachers/activity.cfm?id=400

Why is this Important? :

As this child learns to use tools for writing and drawing, it is important to provide him with many opportunities to practice making purposeful marks on paper.

You may observe development on the following Teaching Strategies Gold Measures:

1b. Follows limits and expectations
7a. Uses fingers and hands
7b. Uses writing and drawing tools
9a. Uses an expanding expressive vocabulary
10a. Engages in conversations
11a. Attends and engages
11d. Shows curiosity and motivation
14a. Thinks symbolically
33. Explores the visual arts

Materials:

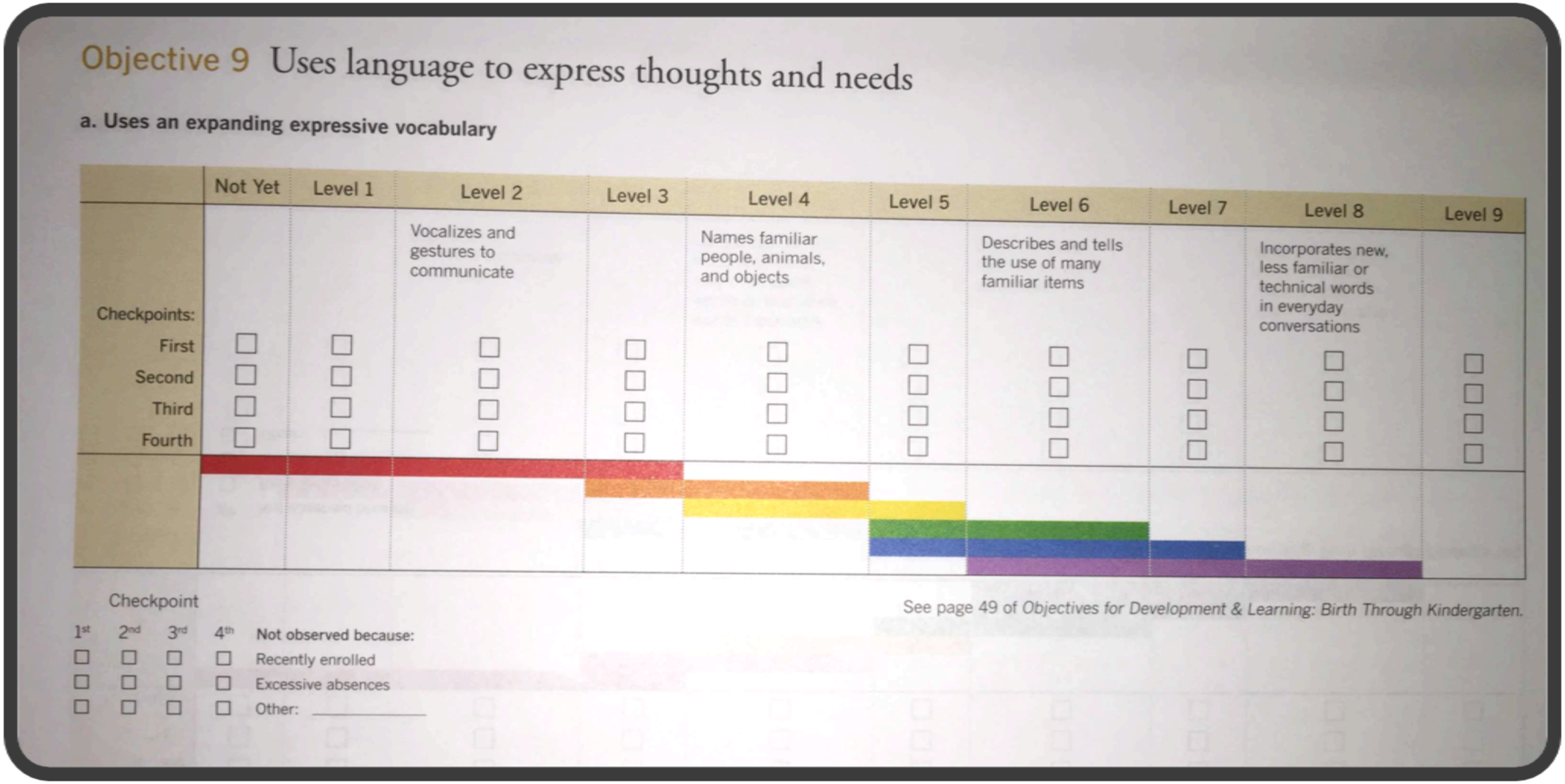
rainbow color paints, paintbrushes, smock, large sheets of paper, bowl of water

What to do:

1. Place the paints, paintbrush, paper, and water on the table so that each is accessible to this child. Make sure the paper is large enough so this child can use whole-arm movements as he paints. If you would like, first read a book that has a rainbow in it with this child, or look at pictures of rainbows together.
2. Invite this child to paint a rainbow. Help him put on his smock.
3. If necessary, demonstrate how to dip the brush into the paint and make big strokes on the paper.
4. As he paints, encourage him to experiment with colors and arm movements. *I see you are painting a big blue line. What color will you paint with next?*
5. Ask this child if he would like to hang his finished painting on the wall or window so that he can see it during the day. Encourage him to share it with a family member. Let him know that paints are available for use each day.

What Are All Children Learning?

Example from Teaching Strategies Gold



Objective 9 Uses language to express thoughts and needs

a. Uses an expanding expressive vocabulary

	Not Yet	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8	Level 9
Checkpoints:			Vocalizes and gestures to communicate		Names familiar people, animals, and objects		Describes and tells the use of many familiar items		Incorporates new, less familiar or technical words in everyday conversations	
First	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Second	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Third	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Fourth	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Checkpoint

1st	2nd	3rd	4th	Not observed because:
☐	☐	☐	☐	Recently enrolled
☐	☐	☐	☐	Excessive absences
☐	☐	☐	☐	Other: _____

See page 49 of *Objectives for Development & Learning: Birth Through Kindergarten.*

Individualizing “Painting a Rainbow” for Matthew

Here are some of Matthew’s learning targets:

Language—Receptive: Following a two-step direction given by an adult related to the activity (e.g., “Cut and then glue the pieces of paper”), Matthew will respond with adult assistance. This will be measured during morning routine, centers, mealtimes, and transitions for 8 out of 10 opportunities each day for 3 consecutive weeks.

Motor—Fine Motor: Matthew will use a paintbrush with an adapted handle to make markings on a page during art or other painting-related activities. Matthew will hold the adapted brush and make at least 5-6 markings during an art activity for 4 consecutive days.

Cognitive—Positional Concepts: Matthew will respond with the correct actions when asked to move objects or himself in relation to another object or location (e.g. Can you put the pencil on top of the paper?) without adult assistance during a variety of classroom activities for 10 times each day for 3 consecutive days.

In addition to the learning opportunities outlined in the Painting a Rainbow activity, we can also embed opportunities for Matthew’s learning targets.

Materials: Same as whole-class activity. Provide paintbrushes with adapted handles at every station.

Plan: At the beginning of the activity, hand Matthew his paint smock and say, “Take this smock and put it on.” Observe whether Matthew can complete this task independently; provide positive feedback or assistance as needed.

Pair Matthew with another child and have them paint on the same easel together.

After materials have been handed out, ensure Matthew has picked up a paintbrush and is making marks on the paper. Provide positive feedback and support as needed.

During the painting activity, ask Matthew and his partner to paint specific parts of the paper (e.g., top, bottom). Provide an opportunity for Matthew to respond. If Matthew does not respond or responds incorrectly, guide his hand to the correct location and name the location. Provide him with feedback after he responds.

Writing Meaningful Learning Targets

Having learning targets that are ***developmentally appropriate; functional and aligned***; ***generative***; and ***observable and measurable*** is very important for getting started with embedded instruction.

Developmentally Appropriate	*The skill is age-appropriate, individually appropriate, and culturally relevant*
Functional & Aligned	Child performance of the skill is needed for **engagement** in important aspects of **daily life** including: *participation, independence, and membership*
Generative	Child performance of the skill is **useful, adaptable, and portable** across settings, people, materials, and events
Observable & Measurable	The skill is **observable**, such that it can be counted, timed, or described; the **conditions** and the **criteria** for child performance are described.

These questions may help guide writing learning targets that are:

Developmentally Appropriate

1. Is the skill one that same-aged peers would need to participate in everyday activities, routines, and transitions?
2. Is the skill in the child's "zone"—not too easy and not to hard for the child to do?

Functional and Aligned

- ✓ Does the skill improve the child's ability to *participate* in the activity?
- ✓ Does the skill increase the child's *independence* in the activity?
- ✓ Is the skill necessary for the completion of daily activities?
- ✓ Does the child *interact* with peers to complete the skill or task?

Generative

- ✓ Is it clearly stated that the skill will be used across settings, activities, people, materials, and events?
- ✓ Is the skill described in terms of a generic response?
- ✓ Is the performance of the skill *useful, adaptable,* and *portable*?

Observable and Measurable

- ✓ Can the skill/behavior be seen or heard?
- ✓ Can I count or measure the occurrence of the behavior?
- ✓ What will the *child do*… to what *level/degree*…under what *conditions*?

Let's Look at an Example

Learning targets are often not written clearly or are missing components necessary for embedded instruction. Well-written learning targets help teachers, parents, and other staff understand what, where, and how to implement embedded instruction as well as how to evaluate child performance.

Let's look at an example of a learning target that we might re-write:

> Matthew will identify his first name.

We can rewrite this goal to be more developmentally appropriate; functional and aligned; generative; and observable and measurable so that it can be embedded throughout classroom activities.

> Matthew will independently point to or say his name when shown a variety of names or words during circle, small group activities, or centers on 3 out of 4 opportunities each day for 4 consecutive days.

Writing the learning target in this way:

- Provides a description of how Matthew demonstrates the skill (he points or says)
- Reflects a response (point to or say his name) that is useful and portable across settings
- Describes the conditions under which the skill should occur (when shown a variety of names or words)
- Indicates how the skill can be embedded across activities (circle, small group activities, centers)
- Specifies the skill in a way that reflects it is used in natural environments
- Explains the skill so that it can be easily observed and measured (point or say rather than "identify")
- Describes the criteria for successful completion of the skill (3 out of 4 opportunities each day for 4 consecutive days)

When to Teach

Ongoing activities, routines, and transitions

When to Teach: Key Practices

5. Select which activities, routines, and transitions are logical and appropriate for embedded instruction given a specified instructional target.

6. Plan which and how many instructional learning trials to embed within and across activities, routines, and transitions.

7. Develop an activity matrix to record when I plan to embed instructional learning trials for individual children.

Scheduled Activities, Routines, and Transitions

Activities

The classroom schedule is an important part of embedded instruction. A well-designed and well-implemented schedule promotes child engagement and helps children understand there is a relatively predictable sequence to their day. When designing the schedule, it is important to balance the types of activities within the schedule. For example, child- and teacher-directed activities should be balanced, and children should be provided opportunities to practice skills in both types of activities.

Routines and Transitions

Children spend a significant amount of time in routines such as eating, cleaning up, toileting, hand washing, or in transitions between activities and routines. We might use these opportunities for embedding instruction, especially given that children, even in classrooms where transitions are minimized, spend time in transitions and routines. Complete learning trials can be embedded into routines and transitions to teach specific skills to children based on their individual learning targets.

All Day Long

Embedded instruction should occur throughout the day -- within and across activities, routines, and transitions to promote the use of important skills across times and settings. Activities, routines, and transitions must be planned carefully to maximize the number of opportunities for embedded instruction. To ensure multiple learning opportunities, we should identify different activities, routines, and transitions where specific learning targets will be addressed.

Scheduled activities, routines, and transitions might include…

Arrival	Lunch
Free play	Nap
Circle time	Outdoor play
Centers	Story time
Snack	Music/Art
Toileting	Departure

Example Classroom Schedule

8:10-8:25	Arrival & Wash Hands
8:25-8:55	Breakfast
8:55-9:10	Morning Circle
9:10-9:30	Small Groups
9:30-10:30	Morning Centers
10:30-10:45	Story time
10:45-11:00	Wash Hand & Lunch Preparation
11:00-11:30	Lunch
11:30-11:50	Art
11:50-12:20	Playground
12:25-1:55	Nap
1:55-2:10	Afternoon Circle
2:10	Dismissal

Breaking Down the Schedule

Now that we've identified the activities, routines, and transitions in the schedule, let's break it down into more specific activities, routines, and transitions that children experience in the classroom.

The schedule shows **Centers** from 9:30 am -10:30 am. During this center time, children might engage in a variety of different activities, routines, and transitions. Let's follow three children to see what they might do during a typical center time.

Scheduled Activity: Centers		
Matthew	**Mia**	**Davion**
Big blocks	Matching game with peer	Sand Table
Waits for Computer	Play-Doh table	Wash Hands
Computer	Dramatic Play	Dramatic Play
Sand Table	Clean up	Cars/Town Map
Wash Hands		Puzzles
Clean up		Clean up

These activities provide learning opportunities for all children. In addition, there are opportunities to embed intentional and systematic instruction on a variety of skills within and across the activities the children experience during this one scheduled "center" activity.

Let's look at another scheduled activity and break it down into the smaller parts. The schedule shows **Circle Time** from 9:00 am-9:15 am. What skills might all children be learning during these activities? How can we embed intentional and systematic instruction in these activities?

Scheduled Activity: Circle Time
Go to Carpet/Sit on Spot
Morning Greetings and News
Calendar and Weather
Transition to Center

Use the "Breaking Down the Daily Schedule" template in the appendix to break down your daily into specific activities, routines, and transitions children experience in your classroom. Think about the skills children need to participate in each activity and how you can provide individualized and systematic instruction within each activity.

Developing an Activity Matrix

An activity matrix helps break down activities, routines, and transitions to identify *times* and *activities* when *instructional procedures* for teaching a child's priority learning targets can be *implemented* in *ongoing [naturally occurring] activities, routines, and transitions*. An activity matrix also helps us think about the learning opportunities for all children.

Key components of an activity matrix include:

- ✓ Activities, routines, and transitions
- ✓ Name(s) of the child(ren) for whom you are planning to embed instructional trials
- ✓ Priority learning targets that will be the focus of embedded instruction
- ✓ Number of instructional trials planned for each activity

Activity Matrix Formats

There are different formats for developing activity matrices. Some examples of activity matrix formats include:

- ✓ Classroom Activity Matrix – Includes scheduled activities and number of instructional trials planned for each child
- ✓ Individual Child Activity Matrix – Includes scheduled activities and number of trials planned for each of one child's priority learning targets
- ✓ Activity Matrix for a Specific Activity or Area – Includes number of instructional trials planned for one or more children within a specified area or scheduled activity (e.g., block center, morning circle)

Use the Individual Child Matrix provided in the appendix to begin planning when to embed instruction for one child in your classroom.

How to Teach

Instructional procedures that promote engagement, learning, and mastery

How to Teach: Key Practices

8. Use systematic instructional strategies with fidelity to teach skills and promote child engagement and learning.

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

10. Implement massed, spaced, or distributed instructional learning trials.

11. Implement the frequency, intensity, and duration of instruction needed to address the child's phase and pace of learning.

Complete Learning Trials

Learning opportunities are as simple as…

Antecedent:

- Objects, events, or behaviors of people that set the occasion for a child's behavior
- "Cues" for the child that indicate which behaviors are appropriate or desired at particular times or in particular settings

  For example, during an art activity a teacher might place the paint just out of reach for the child to "arrange" an opportunity for requesting.

Behavior:

- What the child does following the antecedent
- Things that can be seen, heard, or felt
- Measurable

  For example, the child asks for the paint.

Consequence:

- Something that happens immediately after the child's behavior
- Increases [or decreases] the likelihood that a behavior will occur again in a similar situation

  For example, the child is passed the paint, and he begins the activity.

Antecedents and Consequences can be ***logically occurring*** or ***planned.***

- By ***logically occurring***, we mean something that typically occurs in the child's environment. For example, the snack cart being rolled into the room might set the occasion for the child to move toward the snack table.
- By ***planned***, we mean something that the teacher or other adult has done to encourage the behavior and that would not otherwise have occurred.

A **complete learning trial** is unique in that

A logically occurring or planned **A**ntecedent

is followed by a **B**ehavior

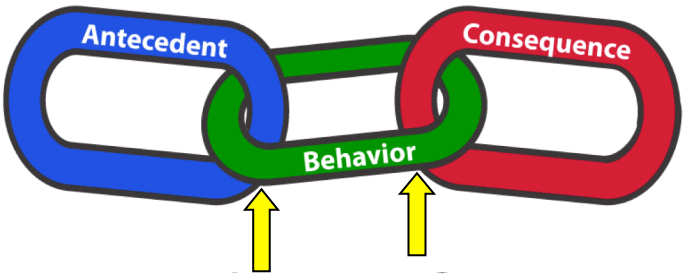
that leads to logically occurring or planned **C**onsequence

Complete learning trials occur whenever there is a "complete" **A-B-C sequence**. Anytime there is an A, but no B, or an A and B but no C, or a B that does not follow logically from an A, the learning trial is INCOMPLETE.

Learning occurs in the connection between the A and the B, which is strengthened or weakened by the occurrence or non-occurrence of the C.

Complete Learning Trials link together the A-B-C to promote child learning

Can you see the learning?

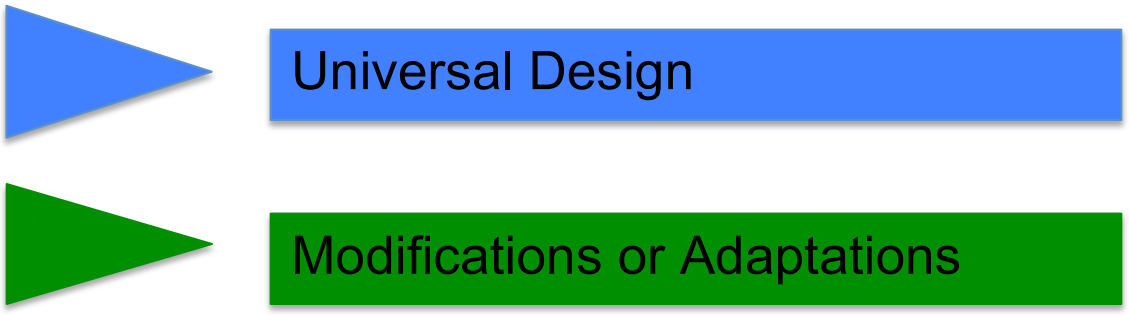


Intentional and Systematic Instructional Procedures

The following intentional and systematic instructional procedures **involve complete learning trials**. These procedures have been taken from a variety of sources utilizing different aspects of instruction. Below is one way to classify the procedures (for more information see Wolery, Ault, & Doyle, 1992).

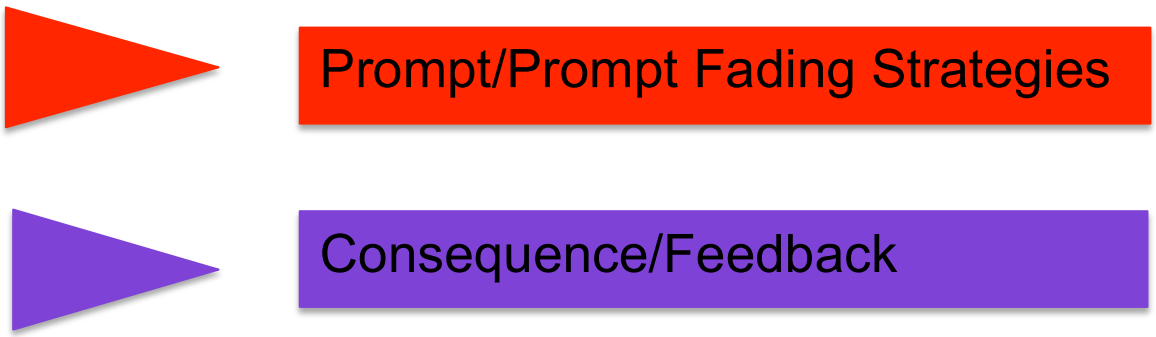
Antecedent Methods: procedures that occur *before* the child responds to increase correct responding

Stimulus Prompts or Stimulus Modification: manipulating relevant stimuli to increase correct responding

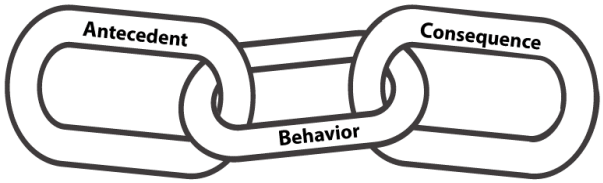


Response Prompts: action taken by the adult before a child responds (or after response error) to increase correct responding

Consequence Methods: procedures that occur *after* the child responds to increase correct responding in the future.



Each procedure is unique in the way that it promotes complete learning trials. Procedures can be used together to ensure complete learning trials.



Universal Design

Universal design for learning focuses on a set of principles for curriculum development and activity planning that gives all individuals equal opportunities

Examples of universal design include but are not limited to:

- Altering the environment (physical, social, temporal)
- Modifying the materials (size, accessibility)
- Modifying the instructional media (paper/pencil to computer)
- Altering the task or activity (duration, difficulty, or size)
- Altering the task sequence

Modifications or Adaptations

Modifications and adaptations involve changes made to an ongoing classroom activity or materials to achieve or maximize a child's participation (Sandall & Schwartz, 2008).

Examples of modifications and adaptations include, but are not limited to:

- Using child preferences to engineer the learning environment
- Providing opportunities for choice
- Using specialized equipment
- Providing novel or interesting materials to occasion targeted behaviors
- Putting desired or preferred materials out of reach to occasion targeted behaviors
- Giving inadequate portions or limiting materials to occasion targeted behaviors
- Creating unexpected situations to occasion targeted behaviors

Naturalistic Instructional

Naturalistic instructional strategies help children learn a new behavior or skill. They typically involve following the child's attentional lead and helping the child to expand or elaborate on his/her behavior.

Naturalistic strategies include, but are not limited to:

- Incidental Teaching
- Mand-Model
- Milieu Teaching

Prompt/Prompt Fading Strategies

Prompt/prompt fading strategies are similar to naturalistic instructional procedures. However, these 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)
- Constant Time Delay (wait time with help)

Consequence/Feedback

Feedback/consequence strategies are used in conjunction with other strategies or on their own. Feedback/consequence strategies occur after a child has engaged in a behavior.

Feedback/consequence strategies include, but are not limited to:

- Descriptive praise
- Reinforcement
- Error correction
- Instructive feedback

Selecting an Instructional Procedure

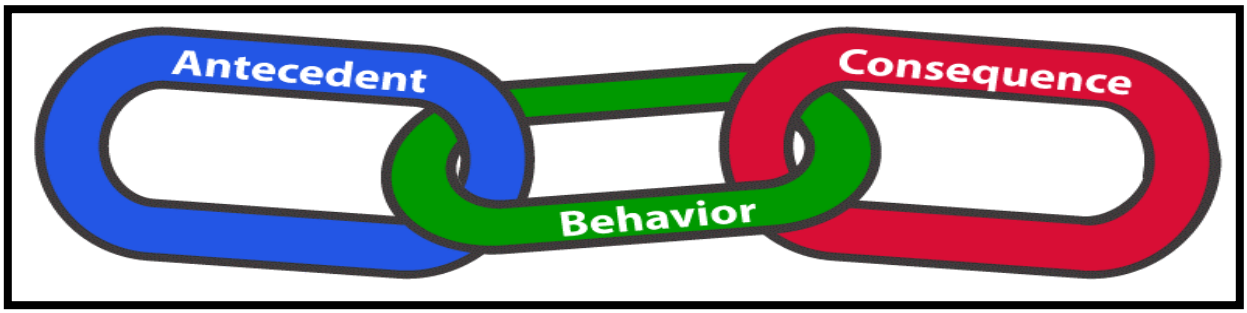
To select an instructional procedure to support a child's learning, consider:

- Learning characteristics of the child (including preferences and interests)
- Type of skill or behavior
- Child's phase of learning (acquisition, fluency, maintenance, generalization, adaptation)
- Procedure that is least intrusive and most effective

To ensure procedures are effective and efficient to support children's learning, it is important to monitor and evaluate children's progress as instructional procedures are used.

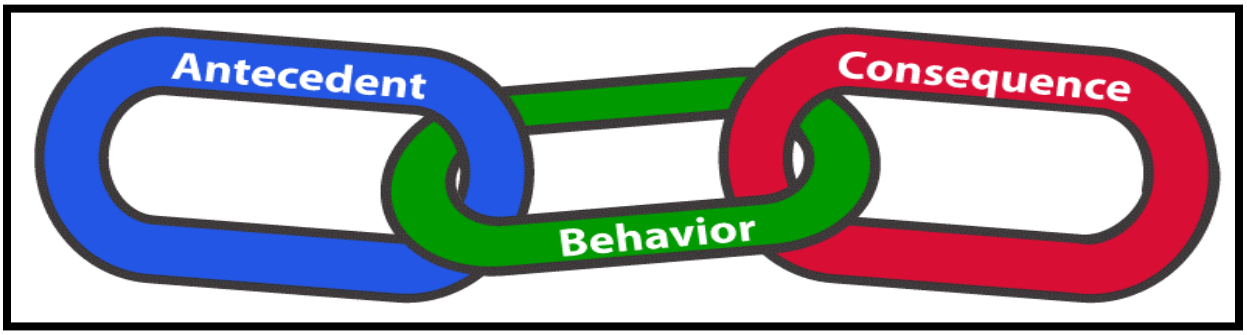
Illustration: Matthew's Complete and Incomplete Learning Trials

Example 1



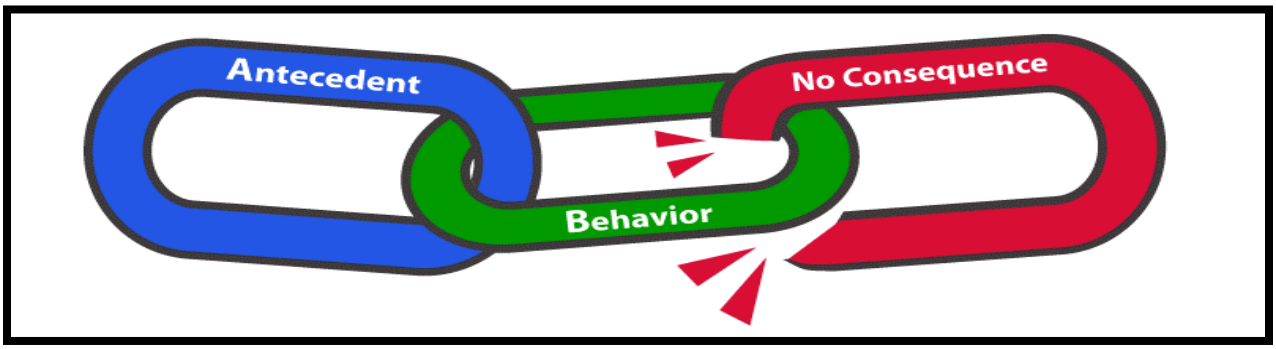
Matthew sees a carton of milk on the table while eating breakfast and his teacher is in proximity	→	***Matthew says "milk"*** as he points to the carton → The teacher pours milk into his cup ***Matthew gets a cup of milk to drink***

Example 2



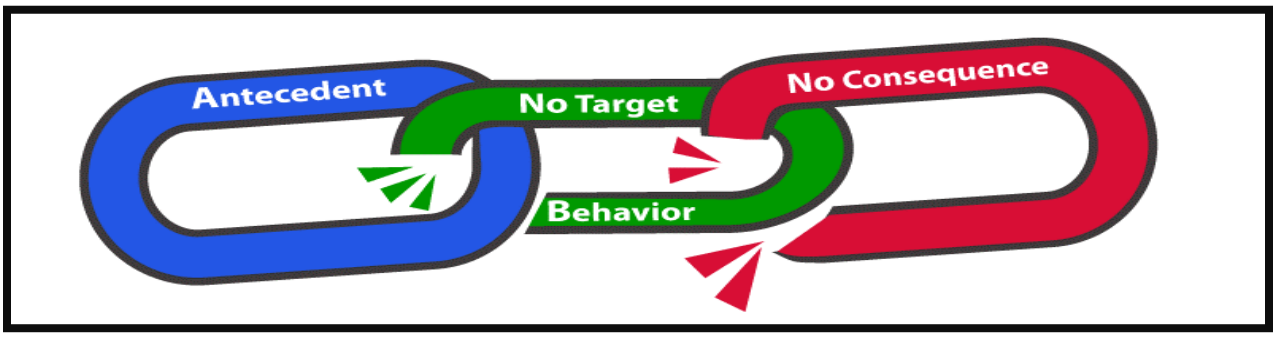
While Matthew is playing with a truck, his ***teacher*** joins the game and ***asks "What color is it?"*** as she points to the truck	→	***Matthew*** looks at the truck and ***says "yellow"*** → The teacher responds "***Yes, that is a yellow truck***"

Example 3



The teacher prompts Matthew to say ***"Cookie please"*** to request a cookie during snack	→	***Matthew says "Cookie please"*** but the teacher is leaving the table and does not hear him → **NO CONSEQUENCE**

Example 4



The teacher asks Matthew "***Where do you want to put this block? Under the table or on top of the table?***" while playing in blocks	→	***Matthew leaves the block area*** without responding to his teacher → **NO CONSEQUENCE**

How to Evaluate

How to Evaluate: Key Practices

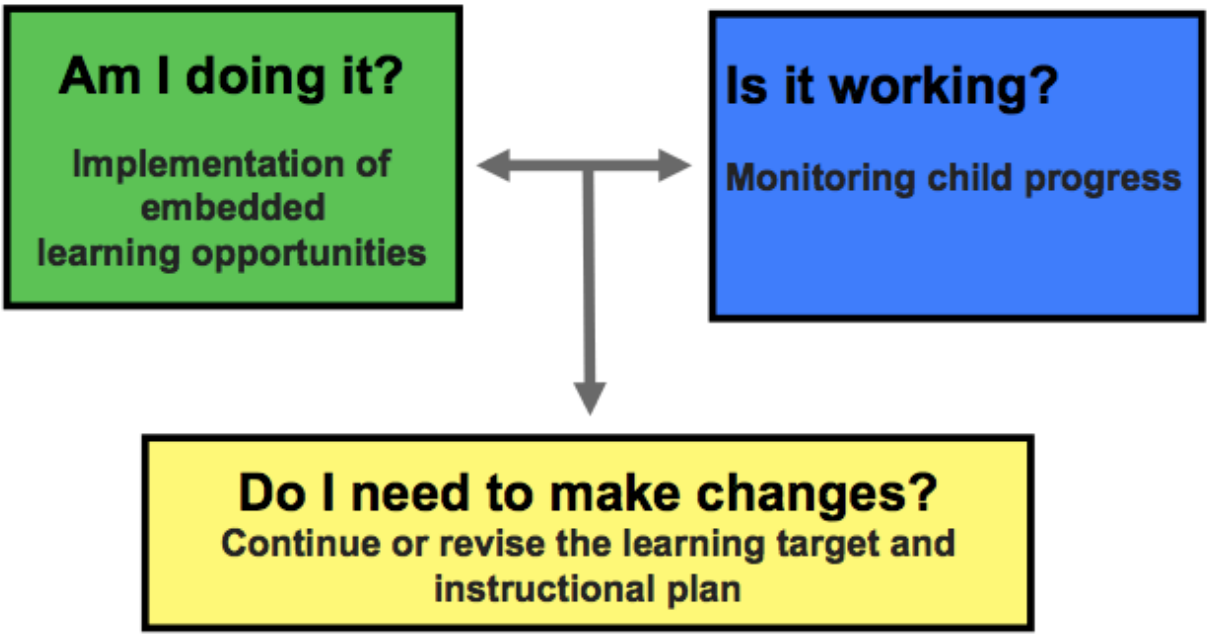
12. Implement strategies to help determine whether I am implementing instructional learning trials with fidelity (i.e., *Am I doing it?*).

13. Implement strategies to help determine if children are making progress on their learning targets (i.e., *Is it working?*).

14. Make data-based decisions about whether changes are needed to my instruction by considering (a) *Am I doing it?* and (b) *Is it working?*

Why Do We Use Evaluation?

Evaluation is a process of gathering information from multiple sources to monitor progress and make informed decisions about what actions are most likely to lead to high quality instruction and child outcomes. Three embedded instruction practices are related to How to Evaluate, each of the practices is represented by one of the blocks below.



Am I doing it? This question refers to data collected by the teacher or a member of the teacher's team about the number of embedded learning opportunities implemented during ongoing activities, routines, and transitions for individual children. These data can be used by the teacher to evaluate if he/she is providing the quantity and quality of learning opportunities for children that he/she planned for each day. Another way to think about this key practice is, "Am I doing what I said I would do?"

Is it working? This question refers to data collected by the teacher or a member of the child's team (e.g., teacher's assistant, therapist, parent, resource teacher) about an individual child's progress on a priority learning targets. This includes looking at how quickly children acquire and become fluent with new behaviors or skills and making decisions about whether or not priority learning targets are in children's zone of proximal development (i.e., not too hard, not too easy, but a just right fit).

Do I need to make changes? This question refers to making data-informed decisions about whether to change What to Teach, When to Teach, or How to Teach. When answering this question teachers use data related to their implementation of embedded instruction and child progress on priority learning targets to decide whether to: (a) continue to follow the current plan, because the teacher is implementing learning opportunities as intended and the target child is demonstrating steady progress; (b) modify the current plan to increase the quantity or quality of learning opportunities or to change the way those opportunities are presented to the child, because although there is some progress the team thinks they can do better; or (c) make a new plan to offer more learning opportunities or revise priority learning targets, because the current plan does not seem to be working for the child.

We will revisit these practices and several new data collection tools in Module 4.

Evaluation in Natural Settings

Evaluation within the embedded instruction approach occurs within the context of daily activities, routines, and transitions, where children can demonstrate they have learned an identified priority learning target AND that they know how to apply this knowledge to access and participate in the preschool classroom.

How is collecting evaluation data for embedded instruction different from a teacher-directed assessment?

- Teachers will not remove children from classroom activities to assess or evaluate their progress on priority learning targets; rather, the teacher will strategically plan for naturally occurring opportunities to practice a skill over time and will record observations intermittently to determine children's progress.

How is collecting evaluation data for embedded instruction going to support me to document a child's progress related to (a) state early learning and development standards and (b) OSEP outcomes?

> ***The best way to understand the development of children is to observe their behavior in natural settings while they are interacting with familiar adults over prolonged periods of time.***
>
> Bronfenbrenner (1977)

- Priority learning targets are designed to be developmentally appropriate and aligned to the preschool curriculum and children's IEPs, so when you are collecting data on priority learning targets you can evaluate whether the child is making progress toward the larger state and curriculum standards and their annual IEP goals or benchmarks.

Wrap-up

Fundamental Features of Complete Learning Trials

When using embedded instruction, complete learning trials should include key features:

- **Activities that promote active engagement**
  - Activities should encourage and motivate children to explore and interact with people, materials, and objects
- **Available opportunities for learning within activities and activity settings**
  - Opportunities for learning become available when activities and activity settings are developmentally appropriate, such that age, ability, and cultural context have been considered
- **Peer and adult models that are available to "cue" the child**
  - Interaction partners set the occasion for behaviors to occur (antecedents)
- **Modifications and adaptations that enhance participation**
  - Supports are in place that increase the participation of all children; materials and objects also set the occasion for behaviors to occur (antecedents)
- **Antecedents that "cue" behavior and are logical in relation to child abilities, child preferences, and activity characteristics**
  - Antecedents should be designed to fit into the flow of an activity, gain the child's attention within the activity, and match the child's ability to respond to the 'cue'
- **Consequences that are logical in relation to child preferences and activity sequences**
  - Consequences should be designed to increase the likelihood the desired behavior occurs again (preferences)
  - Consequences should be delivered within the natural flow of the activity

These features distinguish complete learning trials used in embedded instruction from other approaches. Using these features promotes child development, learning, and mastery. Teachers using an embedded instruction approach should consider these features during planning, implementing, and evaluating.

Tips for Success

Whether embedded instruction is an approach brand new to you or something you have been doing for years, we recommend the following practices to ensure sufficient, intentional, and systematic instruction within and across everyday activities, routines, and transitions to maximize young children's learning.

- Know the key features of embedded instruction
- Examine your instructional practices using the *Embedded Instruction Practices Needs Assessment*; identify if and when you are already using key embedded instruction practices
- Examine your instructional practices to identify which key embedded instruction practices you are not currently using
- Consider how to adjust your instructional practices to include all the key features of embedded instruction
- Create an action plan to support your implementation of embedded instruction
- Talk to your team about your action plan. Include the team in planning, implementing, and evaluating the plan
- Systematically introduce aspects of embedded instruction in your classroom
- Monitor and evaluate how changes to your practice are affecting you, the children, and other personnel
- Seek out resources and support as needed; share your experiences with colleagues
- Celebrate your successes and learn from your experiences!

When you begin coaching, you will have additional supports to help implement key features of embedded instruction.

References

Bronfenbrenner, U. (1992). Ecological systems theory. In R. Vasta (Ed.) *Six theories of child development: Revised formulations and current issues,* 187-248. Philadelphia: Kingsley.

Division for Early Childhood. (2014). DEC recommended practices in early intervention/early childhood special education 2014. Retrieved from http://www.dec-sped.org/recommendedpractices

Dunst, C. J., Herter, S., & Shields, H. (2000). Interest-based natural learning opportunities. *Young Exceptional Children Monograph Series No. 2: Natural Environments and Inclusion,* 37-48.

Dunst, C. J., Bruder, M. B., Trivette, C. M., Hamby, D., Raab, M., & McLean, M. (2001). Characteristics and consequences of everyday natural learning opportunities. *Topics in Early Childhood Special Education, 21*, 68-92.

Hobbs, N. (1967). Helping disturbed children: Psychological and ecological strategies. *American Psychologist*, *21,* 1105-1115.

Snyder P., Rakap, S., Hemmeter, M.L., McLaughlin, T., Sandall, S., & McLean, M. (2015). Naturalistic instructional approaches in early learning: A systematic review. *Journal of Early Intervention*, *37*(1), 69-97.

Wolery, M., Ault, M. J., & Doyle, P. M. (1992). *Teaching students with moderate to severe disabilities.* New York: Longman..

Empirical Research on Embedded Instruction Approaches:

Apache, R. R. G. (2005). Activity-based intervention in motor skill development. *Perceptual and Motor Skills, 100*, 1011-1020.

Bambara, L. M., Warren, S. F., & Komisar, S. (1988). The individualized curriculum sequencing model: Effects on skill acquisition and generalization. *Journal of the Association for Persons with Severe Handicaps, 13*, 8-19.

Botts, D. C., Losardo, A. S., Tillery, C. Y., & Werts, M. G. (2012). A comparison of activity-based intervention and embedded direct instruction when teaching emergent literacy skills. *The Journal of Special Education*. Advance online publication. doi: 10.1177/0022466912449652.

Cavallaro, C. C. & Poulson, C. L. (1985). Teaching language to handicapped children in natural settings. *Education & Treatment of Children, 8*, 1-24.

Christensen-Sandfort, R. J., & Whinnery, S. B. (2013). Impact of milieu teaching on communication skills of young children with autism spectrum disorders. *Topics in Early Childhood Special Education, 32*, 211-222.

Chiara, L., Schuster, J. W., Bell, J. K., & Wolery, M. (1995). Small-group massed-trial and individually-distributed-trial instruction with preschoolers. *Journal of Early Intervention*, *19*, 203-217.

Culatta, B., Kovarsky, D., Theadore, G., Franklin, A., & Timler, G. (2003). Quantitative and qualitative documentation of early literacy instruction. *American Journal of Speech-Language Pathology, 12*, 172-188.

Daugherty, S., Grisham-Brown, J., & Hemmeter, M. L. (2001). The effects of embedded skill instruction on the acquisition of target and nontarget skills in preschoolers with developmental delays. *Topics in Early Childhood Special Education, 21*, 213-221.

Fox, L., & Hanline, M. F. (1993). A preliminary evaluation of learning within developmentally appropriate early childhood settings. *Topics in Early Childhood Special Education, 13*, 308-327.

Garfinkle, A. N., & Schwartz, I. S. (2002). Peer imitation: Increasing social interactions in children with autism and other developmental disabilities in inclusive preschool classrooms. *Topics in Early Childhood Special Education, 22*, 26-38.

Grisham-Brown, J., Pretti-Frontczak, K., Hawkins, S. R., & Winchell, B. N. (2009). Addressing early learning standards for all children within blended preschool classrooms. *Topics in Early Childhood Special Education, 29*, 131-142.

Grisham-Brown, J., Ridgley, R., Pretti-Frontczak, K., Litt, C., & Nielson, A. (2006). Promoting positive learning outcomes for young children in inclusive classrooms: A preliminary study of children's progress toward pre-writing standards. *Journal of Early and Intensive Behavior Intervention*, *3*, 171-190.

Grisham-Brown, J., Schuster, J. W., Hemmeter, M. L., & Collins, B. C. (2000). Using an embedding strategy to teach preschoolers with significant disabilities. *Journal of Behavioral Education, 10*, 139-162.

Halle, J. W., Baer, D. M., & Spradlin, J. E. (1981). Teachers' generalized use of delay as a stimulus control procedure to increase language use in handicapped children. *Journal of Applied Behavior Analysis, 14*, 389- 409.

Harjusola-Webb, S. & Robbins, S. H. (2012). The effects of teacher-implemented naturalistic intervention on the communication of preschoolers with autism. *Topics in Early Childhood, 32*, 99-110.

Horn, E., Lieber, J., Li, S., Sandall, S., & Schwartz, I. (2000). Supporting young children's IEP goals in inclusive settings through embedded learning opportunities. *Topics in Early Childhood Special Education, 20*, 208-223.

Johnston, S., Nelson, C., Evans, J., & Palazolo, K. (2003). The use of visual supports in teaching young children with autism spectrum disorder to initiate interactions. *Augmentative and Alternative Communication, 19*, 86-103.

Kaczmarek, L. A., Hepting, N. H., & Dzubak, M. (1996). **Examining the generalization of milieu language objectives in situations requiring listener preparatory behaviors.** *Topics in Early Childhood Special Education*, *16*, 139-167.

Kern, P., Wolery, M., & Aldridge, D. (2007). Use of songs to promote independence in morning greeting routines for young children with autism. *Journal Autism and Developmental Disorders, 37*, 1264-1271.

Kohler, F. W., Anthony, L. J., Steighner, S. A., & Hoyson, M. (2001). Teaching social interaction skills in the integrated preschool: An examination of naturalistic tactics. *Topics in Early Childhood Special Education, 21*, 103-113.

Kohler, F. W., Strain, P. S., Hoyson, M., & Jamieson, B. (1997). Merging naturalistic teaching and peer-based strategies to address the IEP objectives of preschoolers with autism: An examination of structural and child behavior outcomes. *Focus on Autism and Other Developmental Disabilities, 12*, 196-206.

Losardo, A., & Bricker, D. (1994). Activity-based intervention and direct instruction: A comparison study. *American Journal on Mental Retardation, 98*, 744-765.

McDonnell, A. P. (1996). The acquisition, transfer, and generalization of requests by young children with severe disabilities. *Education and Training in Mental Retardation and Developmental Disabilities*, *31*, 213-234.

Macy, M.G., & Bricker, D. D. (2007). Embedding individualized social goals into routine activities in inclusive early childhood classrooms. *Early Child Development and Care, 177*, 107-120.

Malmskog, S., & McDonnell, A. P. (1999). Teacher-mediated facilitation of engagement by children with developmental delays in inclusive preschools. *Topics in Early Childhood Special Education, 19*, 203-216.

McBride, B. J., & Schwartz, I. S. (2003). Effects of teaching early interventionists to use discrete trials during ongoing classroom activities. *Topics in Early Childhood Special Education, 23*, 5-17.

McCathren, R. B. (2000). Teacher-implemented prelinguistic communication intervention. *Focus on Autism and Other Developmental Disabilities, 15*, 21-29.

McDonnell, A. P. (1996). The acquisition, transfer, and generalization of requests by young children with severe disabilities. *Education and Training in Mental Retardation and Developmental Disabilities*, *31*, 213-234.

Mudd, J. M., & Wolery, M. (1987). Training Head Start teachers to use incidental teaching. *Journal of the Division for Early Childhood, 11*, 124-133.

Neef, N. A., Walters, J., & Egel, A. L. (1984). Establishing generative yes/no responses in developmentally disabled children. *Journal of Applied Behavior Analysis, 17*, 453-460.

Olive, M. L., Cruz, B., Davis, T. N., Chan, J. M., Lang, R. B., O'Reilly, M. F., & Dickson, S. M. (2007). The effects of enhanced milieu teaching and a voice output communication aid on the requesting of three children with autism. *Journal Autism and Developmental Disorders, 37*, 1505-1513.

Peck, C. A., Killen, C. C., & Baumgart, D. (1989). Increasing implementation of special education instruction in mainstream preschools: Direct and generalized effects of nondirective consultation. *Journal of Applied Behavior Analysis, 22*, 197-210.

Pretti-Frontczak, K., & Bricker, D. (2001). Use of the embedding strategy during daily activities by early childhood education and early childhood special education teachers. *Infant and Toddler Intervention: The Transdisciplinary Journal, 11*, 111-128.

Sandall, S., & Schwartz, I. S. (2008). *Building blocks for teaching preschoolers with special needs* (2nd Ed.). Baltimore, MD: Brookes.

Schepis, M. M., Ownbey, J. B., Parsons, M. B., & Reid, D. H. (2000). Training support staff for teaching young children with disabilities in an inclusive preschool setting. *Journal of Positive Behavior Interventions, 2*, 170-178.

Schepis, M. M., Reid, D. H., Behrmann, M. M., & Sutton, K. A. (1998). Increasing communicative interactions of young children with autism using a voice output communication aid and naturalistic teaching. *Journal of Applied Behavior Analysis, 31*, 561-578.

Schepis, M. M., Reid, D. H., Ownbey, J., & Parsons, M. B. (2001). Training support staff to embed teaching within natural routines of young children with disabilities in an inclusive preschool. *Journal of Applied Behavior Analysis, 34*, 313-327.

Snyder, P., Hemmeter, M.L., McLean, M.E., Sandall, S., & McLaughlin. (2013). Embedded instruction to support early learning in response to intervention frameworks. In V. Buysse & E. S. Peisner-Feinberg (Eds.), *Handbook of response to intervention in early childhood* (pp. 283-300). Baltimore, MD: Brookes.

Toelken, S., & Miltenberger, R. G. (2012). Increasing independence among children diagnosed with autism using a brief embedded teaching strategy. *Behavioral Interventions, 27,* 93-104.

Venn, M. L., Wolery, M., Werts, M. G., Morris, A., DeCesare, L. D., & Cuffs, M. S.

(1993). Embedding instruction in art activities to teach preschoolers with disabilities to imitate their peers. *Early Childhood Research Quarterly, 8*, 277-294.

Warren, S. F., McQuarter, R. J., & Rogers-Warren, A. P. (1984). The effects of mands and models on the speech of unresponsive language- delayed preschool children. *Journal of Speech and Hearing Disorders, 49*, 43-52.

Werts, M. G., Wolery, M., Holcombe-Ligon, A., Vassilaros, M. A., & Billings, S. S. (1992). Efficacy of transition-based teaching with instructive feedback. *Education and Treatment of Children, 15*, 320-334.

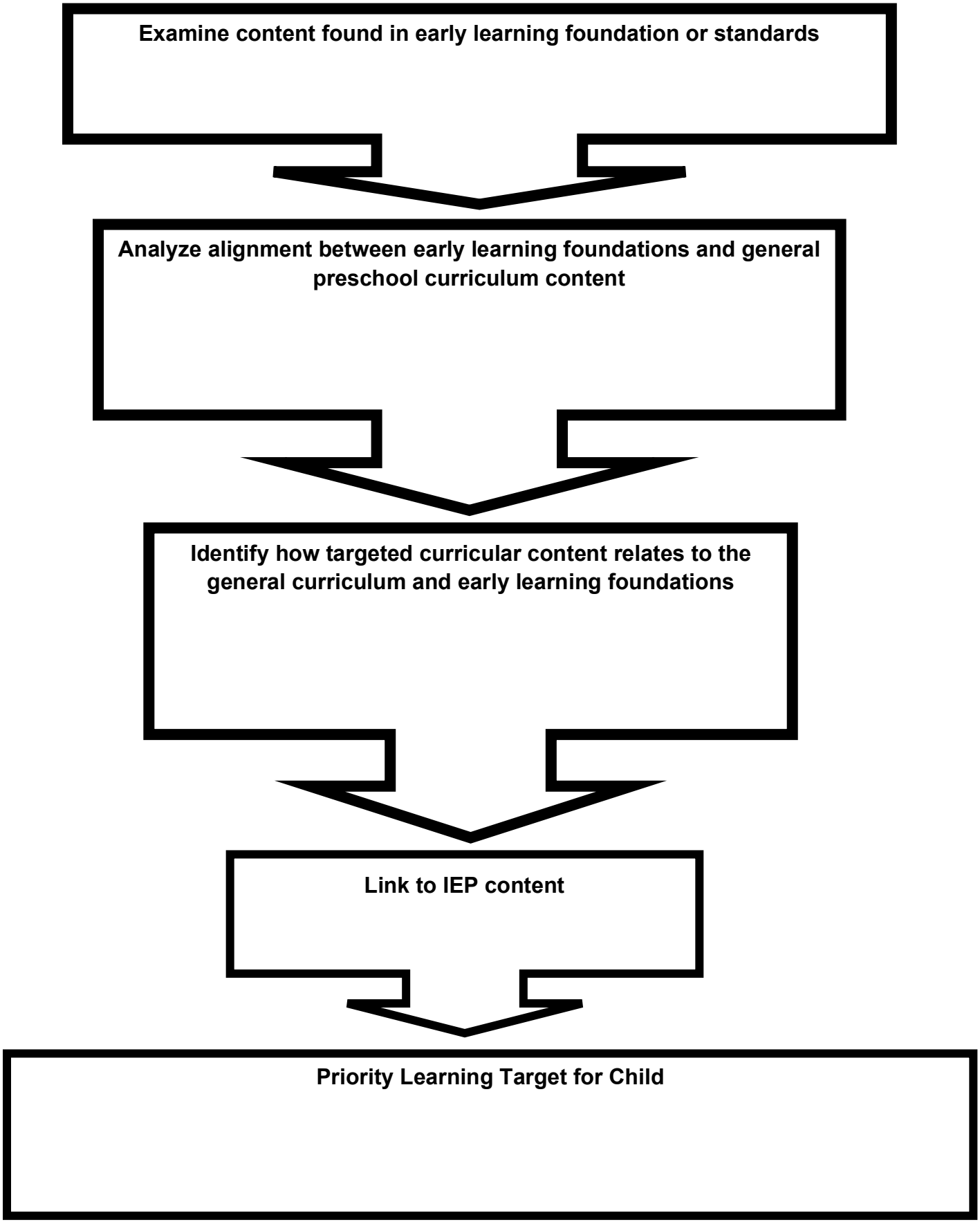
Wolery, M., Anthony, L., & Heckathorn, J. (1998). Transition-based teaching: Effects on transitions, teachers' behavior, and children's learning. *Journal of Early Intervention, 21*, 117-131.

Wolery, M., Munson Doyle, P., Gast, D. L., Ault-Jones, M., & Lichtenberg Simpson, S. (1993). Comparison of progressive time delay and transition-based teaching with preschoolers who have developmental delays. *Journal of Early Intervention, 17*, 160-176.

Yoder, P. J., Kaiser, A. P., Goldstein, H., Alpert, C., Mousetis, L., Kaczmarek, L., & Fischer, R. (1995). An exploratory comparison of milieu teaching and responsive interaction in classroom applications. *Journal of Early Intervention, 19*, 218-242.

Appendix

Linking Curricular Content to Learning Targets



Breaking Down the Daily Schedule

Activity	Number of Adults in Classroom	What tasks are occurring?	What opportunities are there for systematic instruction?

Individual Child Matrix

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

Learning Targets Schedule			