Embedded Instruction for Early Learning
Tools for Teachers

Module 4:
How to Evaluate

Ground Rules

- Settle in and be comfortable

- Participate, ask questions, and reflect

- Put questions in the parking lot

- Talk or text in the hallway

- Silence phones

- Get to know each other and enjoy…

Tools for Teachers Workshops

Module 1: Overview Webinar
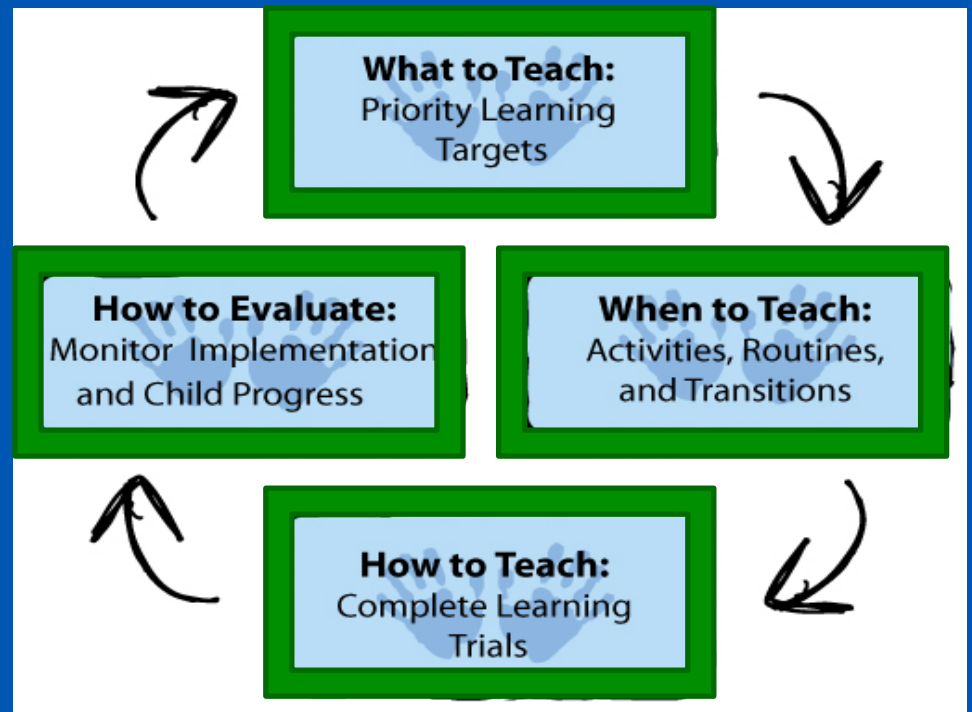
Module 2: What to Teach

Module 3: When to Teach & How to Teach

Module 4: How to Evaluate

Embedded Instruction for Early Learning
Tools for Teachers

How to Evaluate

Key Practices: How to Evaluate

12. Collect and analyze data to determine whether **I** am implementing instructional learning trials with fidelity (i.e., **Am I doing it?**).

13. Collect and analyze data to determine if children are making progress on their priority learning targets (i.e., **Is it working?**).

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

Embedded Instruction for Early Learning
Tools for Teachers

Is Embedded Instruction Working for Mia?

Initial Ideas About Evaluating Embedded Instruction

1. What are the important components of embedded instruction for helping move Mia forward?

2. How will Mia's team know if they are implementing embedded instruction with fidelity?

3. How will they know if embedded instruction is working to move Mia forward?

4. What types of data might they need to collect?

5. What if they find out Mia is still not making progress? What might they need to consider?

6. How could they implement embedded instruction and collect data at the same time?

After completing the evaluation module, you will be able to:

- Describe strategies for evaluating whether embedded instruction is implemented with fidelity → **Am I doing it?**

- Collect, analyze, and interpret child data to evaluate whether embedded instruction is helping the child make progress related to priority learning targets → **Is it working?**

- Identify strategies for making decisions about adjusting instruction based on data you have collected → **Do I need to make changes?**

Embedded Instruction for Early Learning
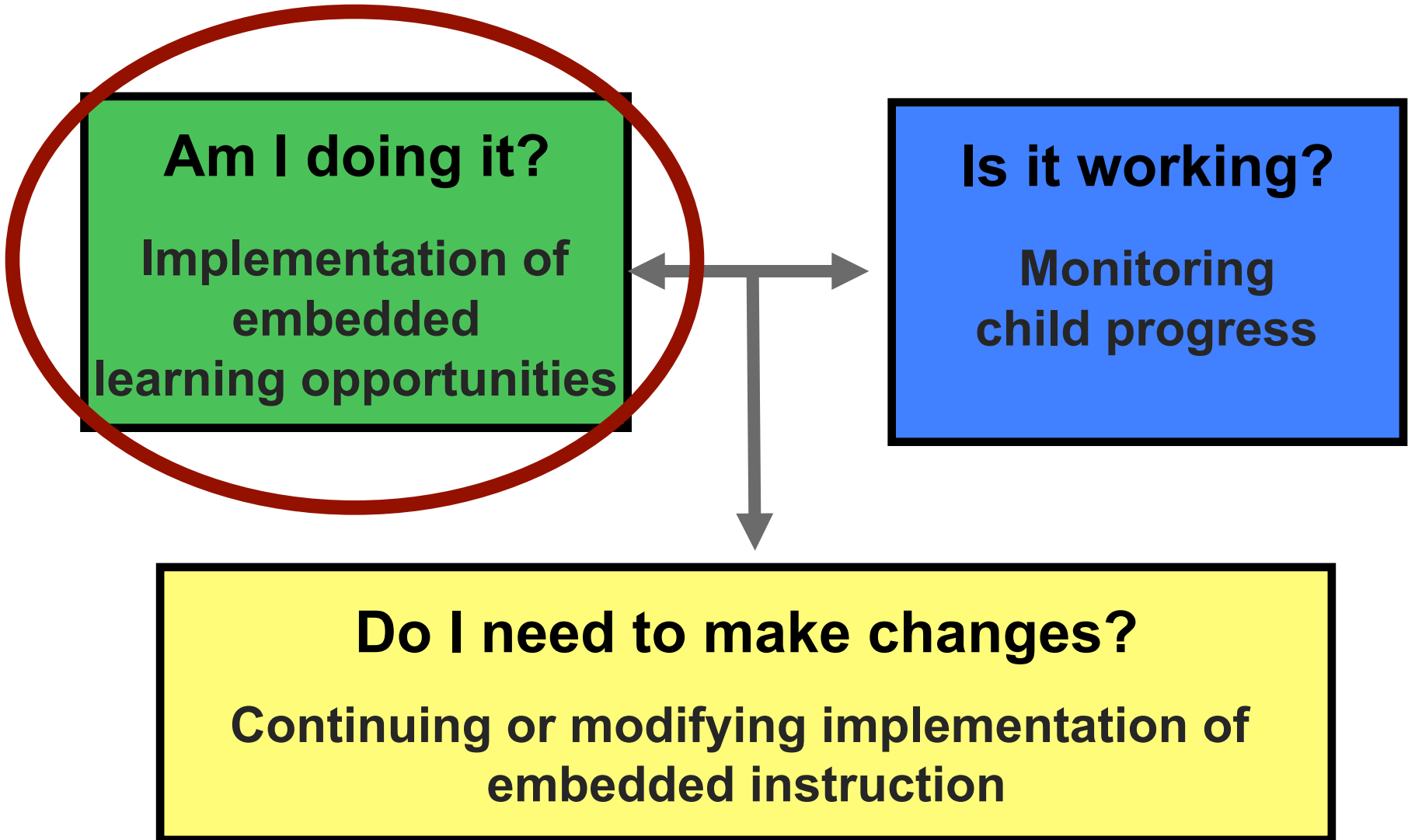## *Tools for Teachers*

How to Evaluate
Key Practice 12:
Am I doing it?

Am I doing it?

Three Key Questions for Evaluating Embedded Instruction

Am I doing it?

Implementation of embedded learning opportunities

Is it working?

Monitoring child progress

Do I need to make changes?

Continuing or modifying implementation of embedded instruction

Priority Learning Target for Mia

Mia will name colors (i.e., red, blue, green, and yellow) when asked during a variety of classroom activities. She will name each color correctly twice a day for three consecutive days.

Priority Learning Target for Mia

Mia will independently request objects using 1-2 words (e.g., "want ball," "bowl") during breakfast, snack, and table games on 3 occasions each day for five consecutive days.

Planned Trials for Mia

Mia	Name Colors	1-2 word request for an object	Give or point to big/little object	Name object in a picture	How many trials for each activity?
Arrival					
Morning Activity/ Free Play	3				3
Breakfast		2			2
Circle			2	2	4
Table Games	2	1			3
Outdoor Play					
Snack		2			2
Centers	2		3	3	8
Departure					
Transitions					
How many trials for each priority learning target?	7	5	5	5	22

	Mia	Matthew	Leo
Arrival			Navigate stairs and obstacles- 2
Morning Activity/ Free Play	Name colors- 3	Follow a 1-step direction- 3	Use a chair or table to stand up from the floor without adult support- 5
Breakfast	1-2 word request for an object- 2	Follow a 1-step direction- 4	Use a chair or table to stand up from the floor without adult support- 5
Circle	Name object in a picture- 2 Give or point to big/little object- 2	Move objects or himself in relation to another object or location- 1	Will express his needs to adults and peers using 2-3 word sentences- 3
Table Games	Name colors- 2 1-2 word request for an object- 1	Move objects or himself in relation to another object or location- 2 Hold marker/paintbrush and make markings on paper- 6	Use a chair or table to stand up from the floor without adult support- 2 Sort objects by color- 1
Outdoor Play		Move objects or himself in relation to another object or location- 3 Use 2-word phrases to request more- 3	Navigate stairs and obstacles- 2
Snack	1-2 word request for an object- 2	Use 2-word phrases to request more- 4	Will express his needs to adults and peers using 2-3 word sentences- 3
Centers	Name colors- 2 Give or point to big/little object- 3 Name object in a picture- 3	Move objects or himself in relation to another object or location- 4 Hold marker/paintbrush and make markings on paper- 6	Sort objects by color- 2
Departure			Navigate stairs and obstacles- 2
Transitions		Follow a 1-step direction- 3	Use a chair or table to stand up from the floor without adult support- 4

During which activities did embedded learning opportunities occur?

Did learning trials occur in the activities in which they were planned to occur?
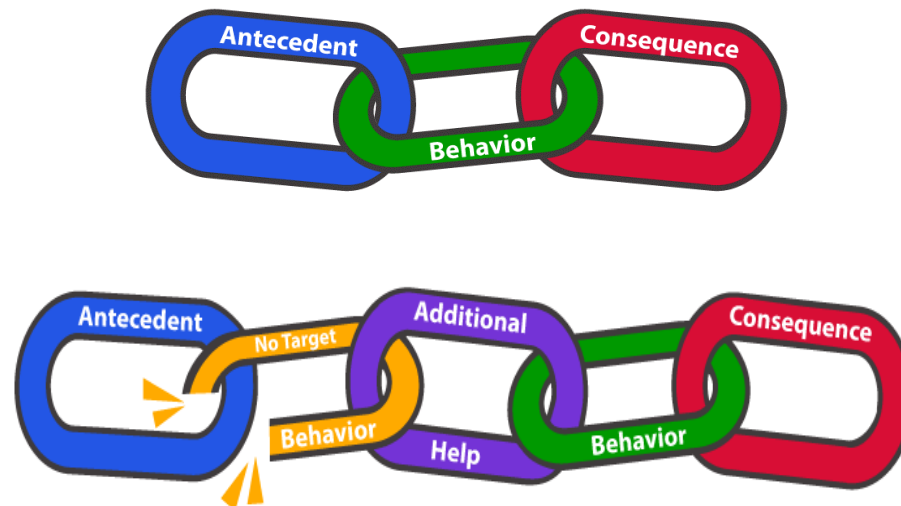
Are the number of planned trials occurring in the activities?

Complete Learning Trials (CLTs)

- A-B-Cs specified for a learning trial have been implemented

- Need to observe implementation of the A-B-Cs and determine if each component of a trial occurred

Instructional Plan   Child's Name:___Mia___   Date:_____

Antecedent

Instructional context: During which activities will the instruction take place?
Morning Activity/Free Play, Table Games, Centers
What do you do or say to elicit the target behavior?
Show object and say, "Mia, what color is this?"

_____

Behavior

Child demonstrates target behavior
Mia says the correct color name (red, blue, green, yellow).

Child does NOT demonstrate the target behavior

What additional help (prompts) do you provide?
Provide a verbal model of the correct color name (e.g., "This is red.")

Behavior

Child demonstrates the target behavior

Behavior

Child does NOT demonstrate the target behavior

Consequence

How do you respond when the child demonstrates the target behavior?
Provide descriptive feedback, such as, "You're right! That is the color red."

Consequence

How do you respond when the child demonstrates the target behavior?
Provide descriptive feedback, such as, "You're right! That is the color red."

Feedback

What feedback do you provide to end the trial?
Provide another verbal model (e.g., "This color is red.")

Evaluation

Type of data: Accuracy
Data Collection Format: Record how many opportunities are provided and mark the number of times she names the colors red, blue, green, and yellow correctly during the day. Calculate percentage of correct behavior by dividing number correct by the number of opportunities provided.

Antecedent

Instructional context: During which activities will the instruction take place?
Breakfast, Table Games, Snack
What do you do or say to elicit the target behavior?
Materials or items that Mia wants are visible but out of reach or are given to a peer.
Look at Mia with an expectant look or gesture.

Behavior

Child demonstrates target behavior
Mia asks the adult or peer for an object using 1-2 words (e.g., "want [   ]" or "[   ] please.

Child does NOT demonstrate the target behavior

What additional help (prompts) do you provide?
Tell Mia, "If you want the [_____], you can ask your friend."
If needed, tell Mia what to say: "Mia, say 'want [_____]."

Behavior

Child demonstrates the target behavior

Behavior

Child does NOT demonstrate the target behavior

Consequence

How do you respond when the child demonstrates the target behavior?
Mia will get the object she asked for and will occasionally receive verbal praise, "Good job using your words, Mia."

How do you respond when the child demonstrates the target behavior?
Mia will get the object she asked for and will occasionally receive verbal praise, "Good job using your words, Mia."

Feedback

What feedback do you provide to end the trial?
"Next time, you can ask for the [_____]."

Evaluation

Type of data: Frequency, Level of Support
Data Collection Format: Tally the number of times she demonstrated the behavior by using 1-2 words to request. Document whether the behavior occurred independently or with a model.

Counting Learning Trials

How many embedded learning trials were complete?

Graphing Data

Graph the Data

tft.embeddedinstruction.net

Tech Request Page 46 iCloud Apple School Reform Initiative Facebook Twitter Wikipedia Yahoo! News csefel.vande.../handout4.pdf Teachstone | ...ing learning.

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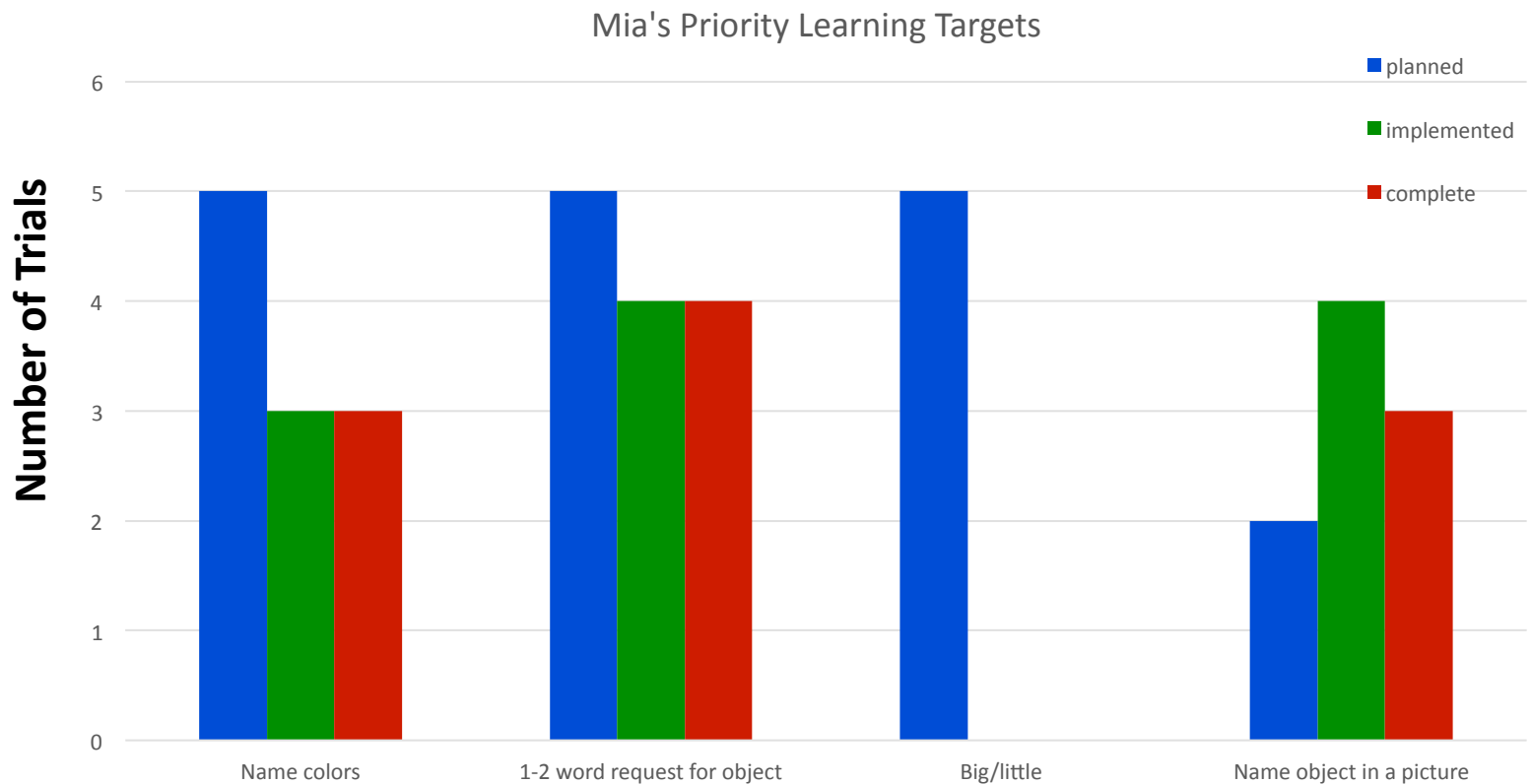Home   Get Started   EI Modules   EI Practices   Videos   Other Resources   Logout

What to Teach

1. Develop and implement activities

2. Obtain information about children's skills

3. Break down larger goals

4. Write learning targets

When to Teach

5. Select activities for embedded instruction

6. How many instructional learning trials

7. Develop an Activity Matrix

How to Teach

8. Systematic instructional strategies

9. ABC instructional learning trials

10. Massed, spaced, or distributed trials

11. Child's phase and pace of learning

How to Evaluate

12. Am I doing it?

13. Is it working?

14. Data-based decisions

Compare Planned, Implemented, and Complete Trials from the Video

Mia's Priority Learning Targets

Number of Trials vs. Priority Learning Targets

Legend: planned (blue), implemented (green), complete (red)

Am I Doing It?
Evaluating Implementation Fidelity

- Are learning trials occurring in the activities in which they were planned to occur?

- Are the number of planned trials occurring in these activities?

- Are the components (the A-B-Cs) implemented so that complete learning trials occur?

Embedded Instruction for Early Learning
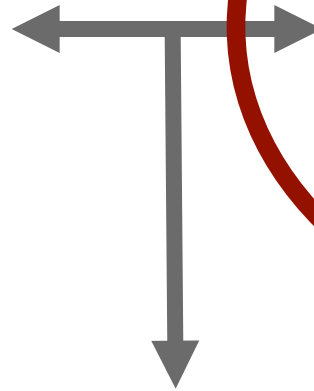## *Tools for Teachers*

How to Evaluate Key Practice 13:
Is it working?

Is it working?

Three Key Questions for Evaluating Embedded Instruction

Am I doing it?

Implementation of embedded learning opportunities

Is it working?

Monitoring child progress

Do I need to make changes?

Continuing or modifying implementation of embedded instruction

Considerations for Monitoring Child Progress In Your Classroom

- **Identifying what data are needed:**

  - What behaviors are targeted?

  - What type of data do I need?

- **Planning for and collecting the data:**

  - How often? When? Where? Who?

  - How do I collect data?

- **Analyzing the data:**

  - How should I display, summarize, and analyze the data?

Identifying the "Is it working?" data needed

Types of Data

Count	**Frequency**	How often a behavior occurs in a specified period of time
		Rate = # of behaviors/unit of time
	Accuracy	Extent to which a child's behavior matches the targeted performance specified (% correct)
Notes & Rating Scale	**Level of Support**	The amount and type of assistance a child needs to complete a task
Time	**Duration**	Length of time it takes to complete a response
	Latency	Length of time from occurrence of specified antecedent to response (behavior) onset
Other	**Intensity**	Amount of force with which the behavior occurs
	Fluency	Combination of speed plus accuracy in responding
	Endurance	How long, how far, or how many times a child can emit a target behavior

Ways to Collect Data
(You can use multiple methods)

Frequency.…………… **Count it**

Accuracy…………..…… **Calculate % correct**

Level of Support….....… **Take notes or use rating scale**

Duration or Latency.... **Time it**

Fluency……………..… **Accuracy plus speed**

Permanent Record..… **Collect work samples**

Describe……….....….. **Take notes or use rubric**

Instructional Plan   Child's Name:____Mia____   Date:_____

Antecedent

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Morning Activity/Free Play, Table Games, Centers
What do you do or say to elicit the target behavior?
Show object and say, "Mia, what color is this?"

Behavior

Child demonstrates target behavior
Mia says the correct color name (red, blue, green, yellow).

Child does NOT demonstrate the target behavior

What additional help (prompts) do you provide?
Provide a verbal model of the correct color name (e.g., "This is red.")

Behavior

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Consequence

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Evaluation

Type of data: Accuracy
Data Collection Format: Record how many opportunities are provided and mark the number of times she names the colors red, blue, green, and yellow correctly during the day. Calculate percentage of correct behavior by dividing number correct by the number of opportunities provided.

Instructional Plan   Child's Name:___Mia___   Date:_____

Antecedent

Instructional context: During which activities will the instruction take place?
Breakfast, Table Games, Snack

What do you do or say to elicit the target behavior?
Materials or items that Mia wants are visible but out of reach or are given to a peer.
Look at Mia with an expectant look or gesture.

Behavior

Child demonstrates target behavior
Mia asks the adult or peer for an object using 1-2 words (e.g., "want [   ]" or "[   ] please.

Child does NOT demonstrate the target behavior

What additional help (prompts) do you provide?
Tell Mia, "If you want the [_____], you can ask your friend."
If needed, tell Mia what to say: "Mia, say 'want [_____].'"

Behavior

Child demonstrates the target behavior

Behavior

Child does NOT demonstrate the target behavior

Consequence

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

What feedback do you provide to end the trial?
"Next time, you can ask for the [_____]."

Evaluation

Type of data: Frequency, Level of Support
Data Collection Format: Tally the number of times she demonstrated the behavior by using 1-2 words to request. Document whether the behavior occurred independently or with a model.

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Planning for and collecting "Is it working?" data

How Often Should I Collect Data?

- Data collection schedules relate to the nature of the behavior and the performance criteria

- For schedules, consider:
  - Existing resources and staffing
  - Embedded instruction occurs daily across activities even if data are collected less frequently
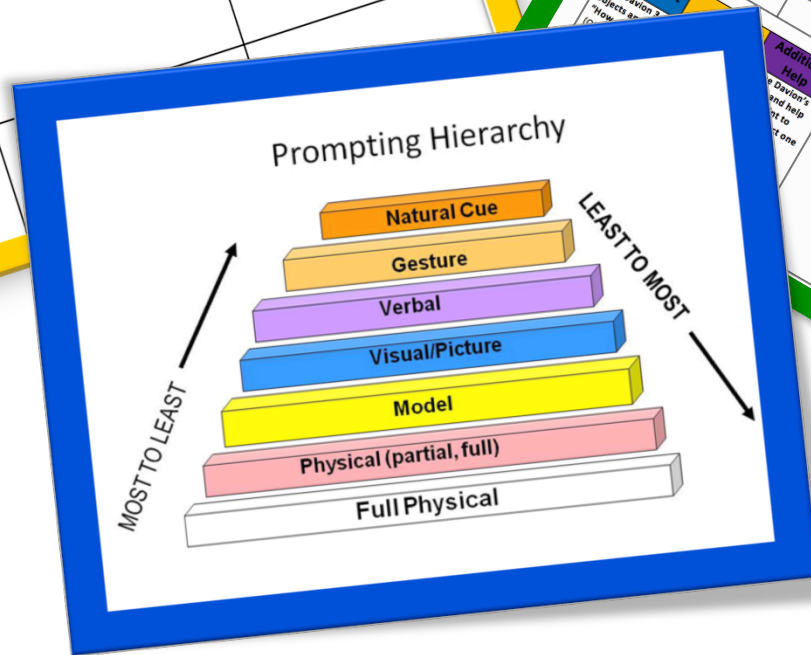 - Data collection is likely to occur using probes

- Possible schedules include:

Bi-monthly probes → Weekly probes → Bi-weekly probes → Daily probes

When? Where? And Who will collect data?

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

Consider Ways to Help Your Team Help You

Child: Bobby Date:	Repeat 1 word with approximation	Receptively identify circle and square
	Say the word to that he can repeat	Provide materials and engaging play and ask child "Give me ☺"
Teacher		
Arrival		
Breakfast		

It's as Easy as ABC!

Prompting Hierarchy

- Natural Cue
- Gesture
- Verbal
- Visual/Picture
- Model
- Physical (partial, full)
- Full Physical

MOST TO LEAST

LEAST TO MOST

"Live" Data Collection

BE CREATIVE…

Video Data Collection

- Using a video camera

- Deciding what and when to record

- Counting the implementation of trials using a data collection form

- Useful for examining the <u>quality</u> of embedded learning trials by examining implementation of A-B-C components

Recall Data Collection

- At end of activity, routine, or transition

- At end of day

- Accuracy of recall data?

Analyzing "Is it working?" data

What Might the Data Tell Us?

- [How often](#) the child performs the behavior

- [How accurately](#) the child performs the behavior

- Which behaviors the child does [independently](#)

- What [types of supports](#), adaptations, or assistance the child needs to perform the behavior

- What environmental or personal factors [influence child performance](#)

- Whether the child is [making sufficient progress](#)

Three Possibilities

If the child…	Then…
Has reached the criterion	Move on to the next step or a new PLT
Is making progress	Continue with what you have been doing
Is <u>not</u> making progress	Change how or what you are teaching

Putting it All Together:
What Do the Data Tell Us About Mia's Progress

Accuracy Across 2 Data Probe Days

Mia will name colors (i.e., red, blue, green, and yellow) when asked during a variety of classroom activities. She will name each color correctly twice a day for three consecutive days.

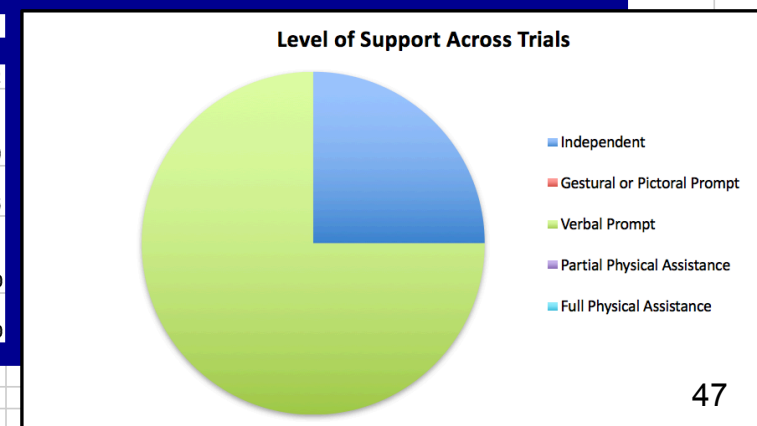|	Opportunities + = Behavior Correct - = Behavior Incorrect			%
	Day 1 (Mon.)	Day 2 (Tues.)	Day 3 (Fri.)	
Red	+ +	+ - +		80%
Blue	+ + + +	+ +		100%
Green	-	+		50%
Yellow	- - +	- + + + + +		66%

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Level of Support Across 2 Days

Mia will independently request objects using 1-2 words (e.g., "want ball," "bowl") during breakfast, snack, and table games on 3 occasions each day for five consecutive days.

DATE OF DATA PROBE	11/2	11/3	
Indep.	I	I	
Verbal Prompt	III	III	
Model			

	Independent	Gestural or Pictoral Prompt	Verbal Prompt	Partial Physical Assistance	Full Physical Assistance
Trial 1			1		
Trial 2	1				
Trial 3			1		
Trial 4			1		
Trial 5			1		
Trial 6			1		
Trial 7	1				
Trial 8			1		
Trial 9					
Trial 10					
Total	2	0	6	0	0

Data Summary	
Independent	2
Gestural or Pictoral Prompt	0
Verbal Prompt	6
Partial Physical Assistance	0
Full Physical Assistance	0

Level of Support Across Trials

- Independent
- Gestural or Pictoral Prompt
- Verbal Prompt
- Partial Physical Assistance
- Full Physical Assistance

An Example: Alignment Universal to Individualized

Individualized

Mia will independently request objects using 1-2 words (e.g., "want ball," "bowl") **during breakfast, snack, and table games on 3 occasions each day for five consecutive days.**
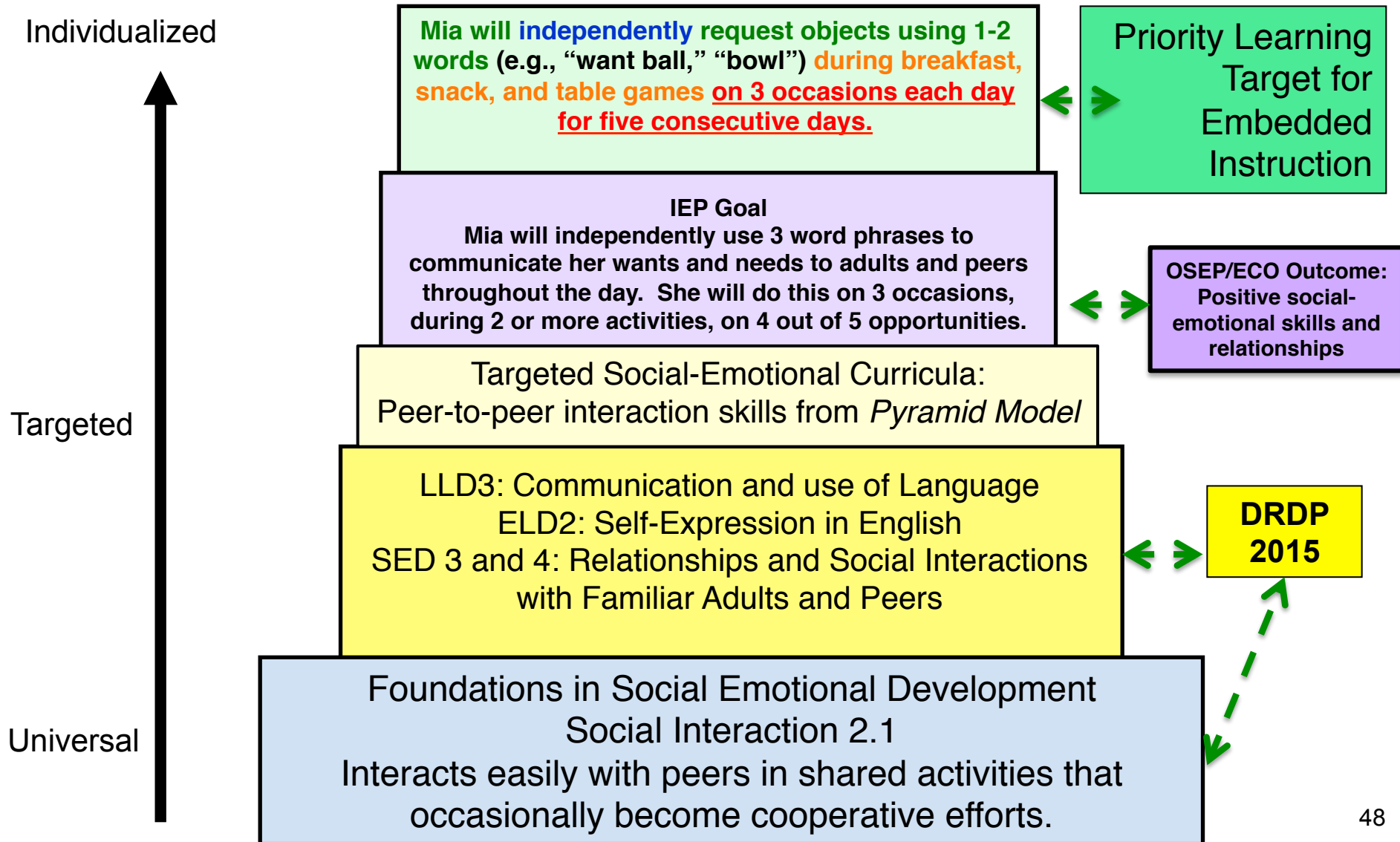
Priority Learning Target for Embedded Instruction

IEP Goal
Mia will independently use 3 word phrases to communicate her wants and needs to adults and peers throughout the day. She will do this on 3 occasions, during 2 or more activities, on 4 out of 5 opportunities.

OSEP/ECO Outcome: Positive social-emotional skills and relationships

Targeted

Targeted Social-Emotional Curricula:
Peer-to-peer interaction skills from *Pyramid Model*

LLD3: Communication and use of Language
ELD2: Self-Expression in English
SED 3 and 4: Relationships and Social Interactions with Familiar Adults and Peers

DRDP 2015

Universal

Foundations in Social Emotional Development
Social Interaction 2.1
Interacts easily with peers in shared activities that occasionally become cooperative efforts.
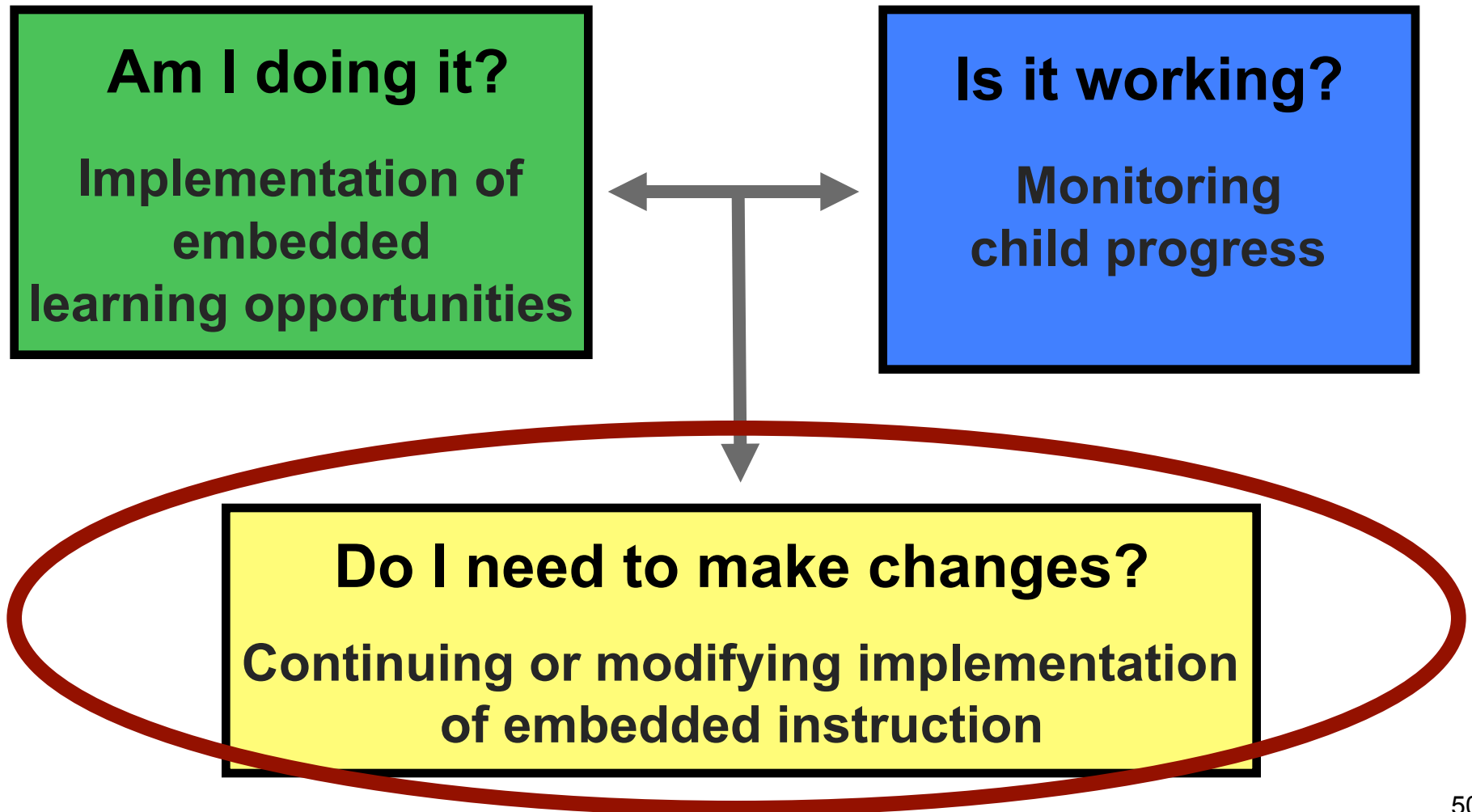
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Embedded Instruction for Early Learning
Tools for Teachers

How to Evaluate Key Practice 14: Do I need to make changes?

Do I need to make changes?

Three Key Questions for Evaluating Embedded Instruction

Am I doing it?

Implementation of embedded learning opportunities

Is it working?

Monitoring child progress

Do I need to make changes?

Continuing or modifying implementation of embedded instruction

Data-Informed Decision Making

Data to Consider:

Am I doing it?

- Did learning trials occur in the activities in which they were planned to occur?

- Are a sufficient number of trials occurring in the activities?

- Are the learning trials complete?

Is it working?

- The child reached the criterion

- The child is making progress
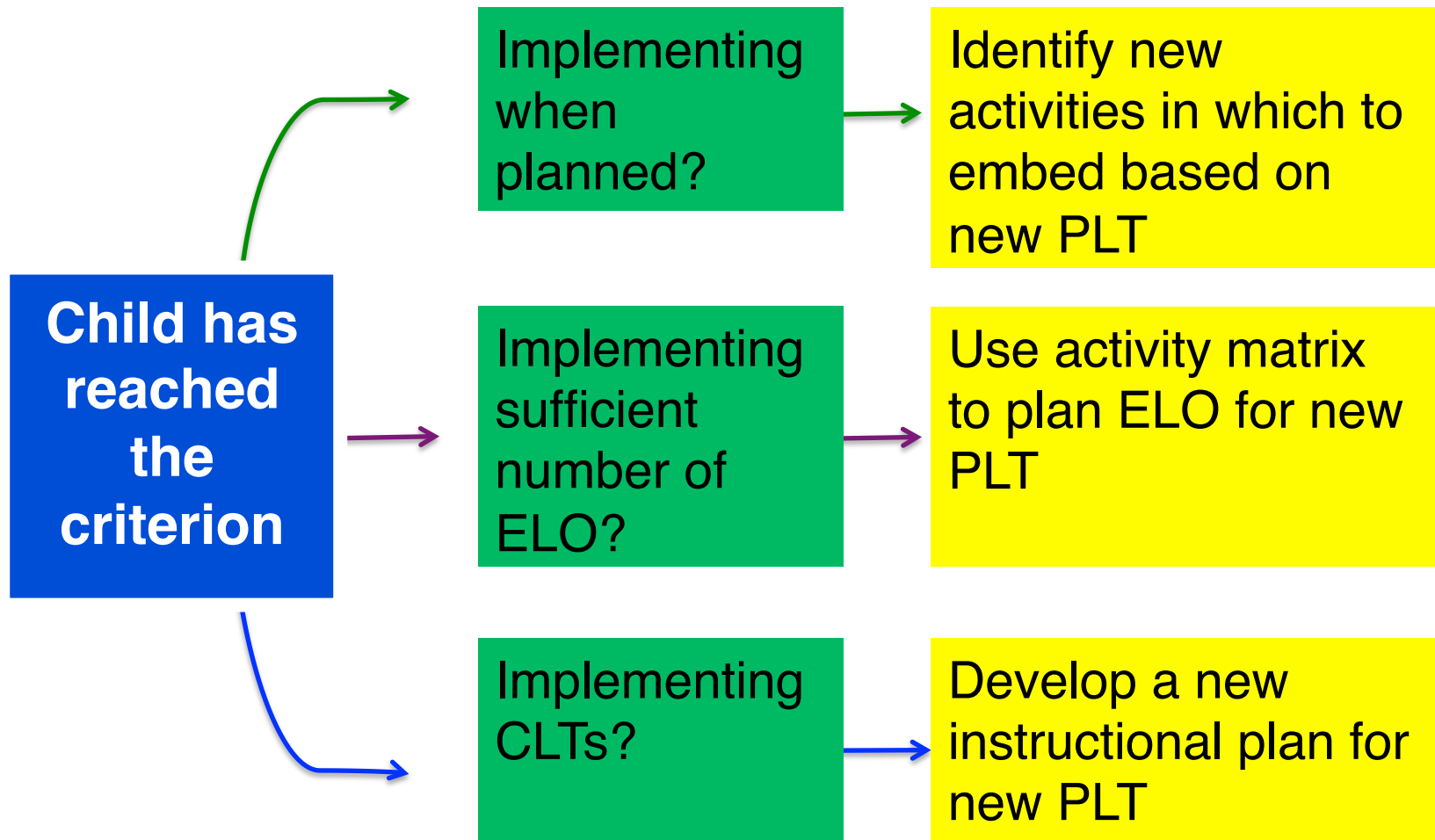
- The child is NOT making progress

Potential Data-Informed Decisions

Is it working?	Am I doing it?	Next steps?
	Implementing when planned?	Identify new activities in which to embed based on new PLT
Child has reached the criterion	Implementing sufficient number of ELO?	Use activity matrix to plan ELO for new PLT
	Implementing CLTs?	Develop a new instructional plan for new PLT

Potential Data-Informed Decisions

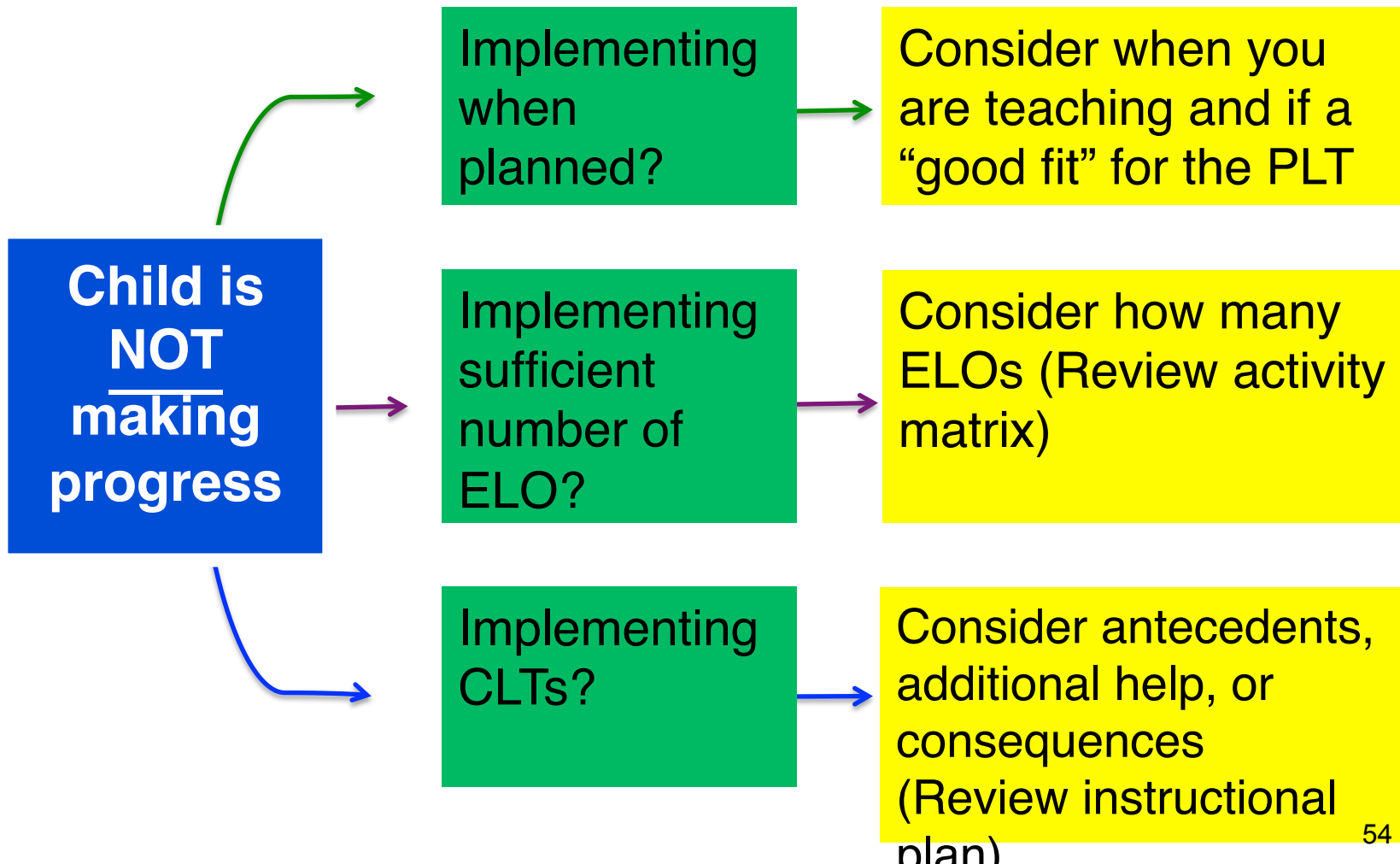| Is it working?	Am I doing it?	Next steps?
	Implementing when planned?	Continue with your activity matrix and consider possible changes
Child is making progress	Implementing sufficient number of ELO?	Continue to implement a sufficient number of trials
	Implementing CLTs?	Continue to review and implement your instructional plan

Potential Data-Informed Decisions

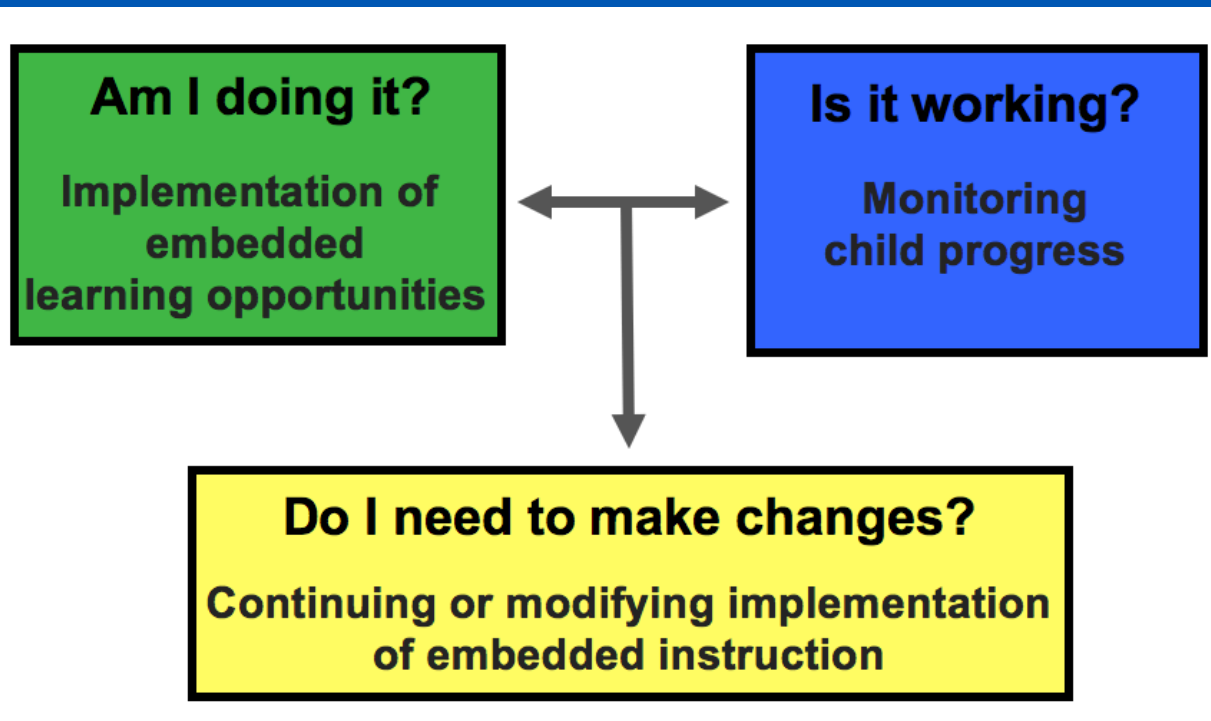| Is it working?	Am I doing it?	Changes I might make?
	Implementing when planned?	Consider when you are teaching and if a "good fit" for the PLT
Child is NOT making progress	Implementing sufficient number of ELO?	Consider how many ELOs (Review activity matrix)
	Implementing CLTs?	Consider antecedents, additional help, or consequences (Review instructional plan)

Putting it All Together:
Making a Decision for Ms. Cheryl and Mia

Wrapping Up
How to Evaluate

Am I doing it?

Implementation of embedded learning opportunities

Is it working?

Monitoring child progress

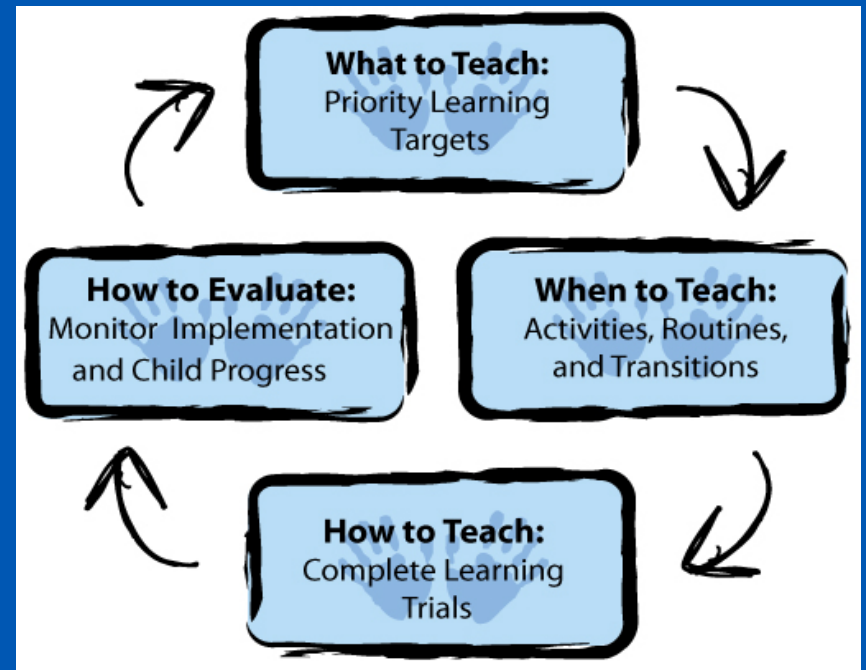**Do I need to make changes?**

Continuing or modifying implementation of embedded instruction

Embedded Instruction for Early Learning
Tools for Teachers

How to Include the Team in Planning for, Implementing, and Evaluating 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

Who is on your Embedded Instruction Team?

Planning:
Who is on the Team?

- Families

- Teaching Assistants

- Therapists for Speech, Occupational, or Physical Therapy

- Specialists for behavior support or assistive technology

- Administrators

Planning:
What Materials Can I Share?

Materials to share:

- Planning forms
- Share videos of embedded learning opportunities
- Module 1: Overview Webinar
- "Practice Briefs" from the website
- Pages from the modules
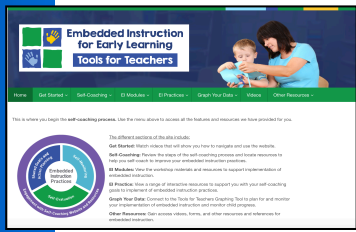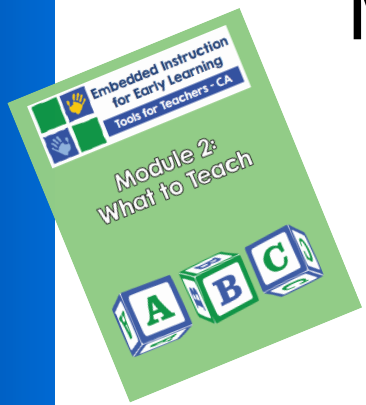
Select specific resources to support the team member. DO NOT give all of your materials to team members.

Embedded Instruction for Early Learning
Tools for Teachers

Share with Team

Embedded Instruction can be implemented by your whole team (including families)

The resources on this page are designed to help you share embedded instruction with your team and families.

Learn about working with your team to implement embedded instruction.
Video Module: Working with the Team

You can share the resources from the embedded instruction website with your team and families.

The following resources might also provide a good introduction to embedded instruction. Please share these with your team and families so they can learn more about embedded instruction.

Brief Introductory Article – Exchange – EI

1-hour Webinar with Dr. Patricia Snyder

Planning:
Gaining Input from the Team

- **Ask team members about priority skills** they believe would support the child to be more independent, participative, and engaged within and across settings

- Work together to identify natural and logical activities for embedding across school, home, and community

Implementing: Embedded Learning Opportunities

- **Role play** delivering embedded instruction using the *Instructional Plan* as a guide with families or the teaching team

- **Model** or **share videos** of your implementation

- **Post an activity matrix** for you and your teaching team to follow throughout the day

- **Encourage families** to practice skills that their child is learning at school while at home or in the community

Evaluating: Embedded Learning Opportunities

- Ask your teaching team to

  - collect data as you deliver embedded instruction in large group

  - collect data on children's use of behaviors/skills

  - film an activity

- Discuss progress on priority skills with families formally or informally

Wrapping Up Teaming

- **Planning**
  - Identify who is on your team
  - Select resources to teach them about embedded instruction
  - Gain input about priority skills for the child

- **Implementation**
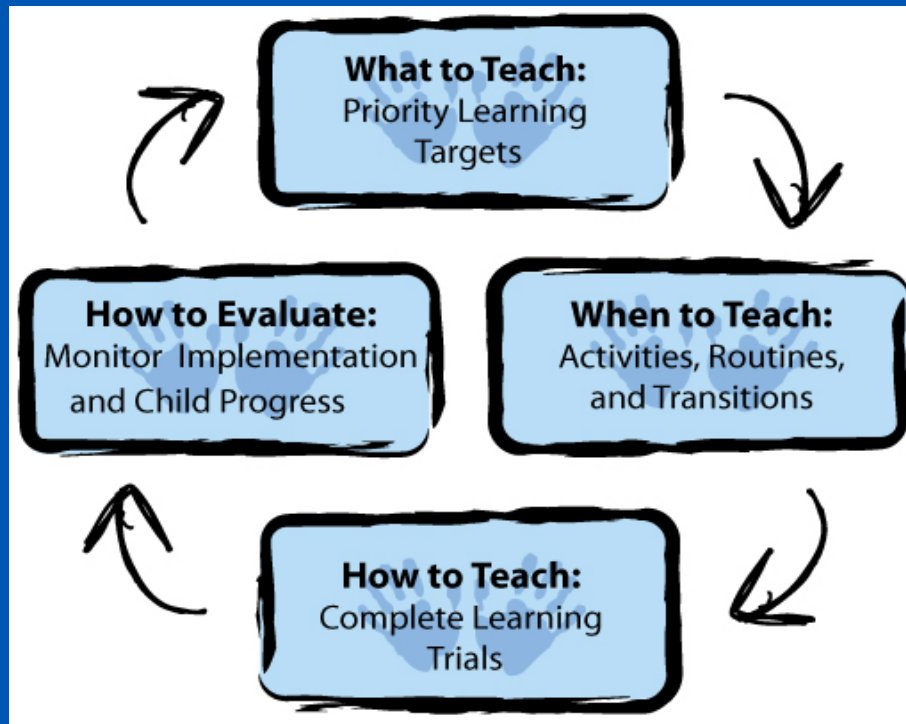 - Identify materials and activities you can use to support implementation

- **Evaluation**
  - Involve the team in collecting "Am I doing It?" and "Is it working?" data

Embedded Instruction for Early Learning
Tools for Teachers

Thank you for your participation!

Next Steps

- Complete the Teacher Strengths and Needs Assessment

- Check-in with your coach