# Embedded Instruction for Early Learning

## *Tools for Teachers*

## Module 4: How to Evaluate

Institute of Education Sciences
Project No. R32A150076

Version 3

# 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…

# Tools for Teachers Workshops

Module 1: Overview

Module 2:  What to Teach & When to Teach

Module 3: How to Teach

Module 4: How to Evaluate

# 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?*

# Embedded Instruction for Early Learning

## *Tools for Teachers*

Did Embedded Instruction Work for Matthew?

# Initial Ideas About Evaluating Embedded Instruction

1. What are the important components of this new approach for helping move Matthew forward?
2. How will Matthew's team know if they are implementing the new approach in the right way?
3. How will they know if the new approach is working for moving Matthew forward?
4. What types of data might they need to collect?
5. What if they find out Matthew is still not making progress? What might they need to consider?
6. How could they implement this new approach and collect data at the same time?

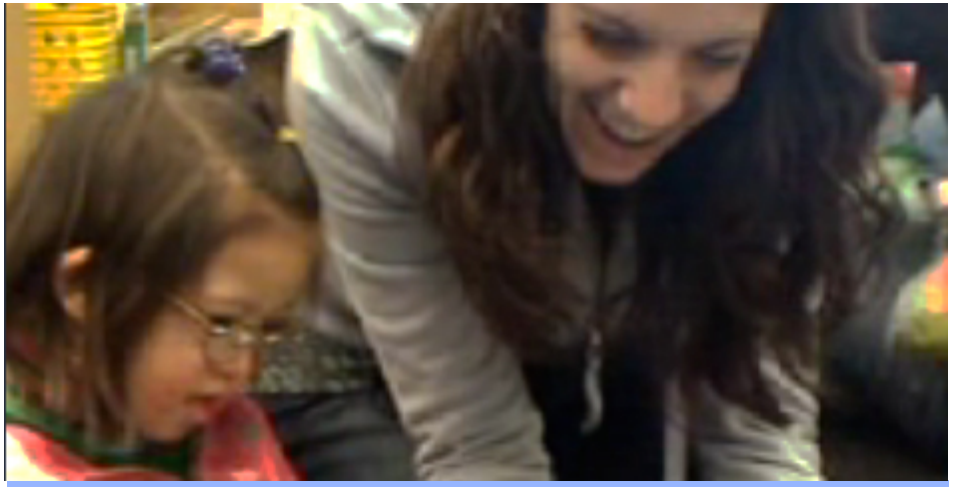
# After completing the evaluation module, you will be able to:

- Describe strategies for evaluating whether embedded instruction is implemented as planned → Am I doing it?
- Collect, analyze, and interpret child data to evaluate whether embedded instruction is helping the child make progress related to the learning target → Is it working?
- Identify strategies for adjusting instruction based on teacher implementation and child progress-monitoring data → Do I need to make changes?

# Embedded Instruction for Early Learning

## *Tools for Teachers*

*Three* Key Questions for Evaluating Embedded Instruction



1. Am I doing it?
2. Is it working?
3. Do I need to make changes?

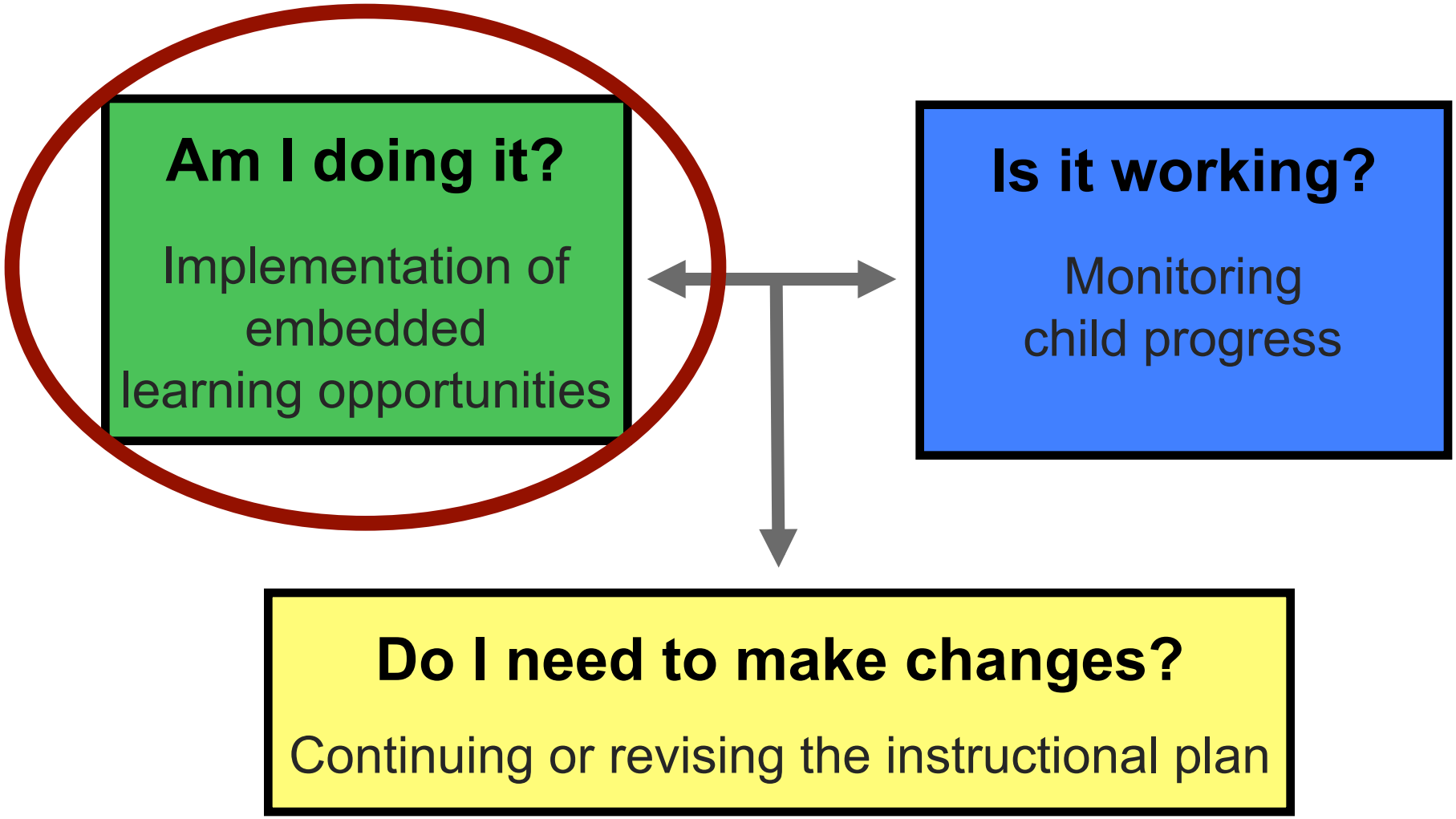
# Embedded Instruction for Early Learning

## *Tools for Teachers*

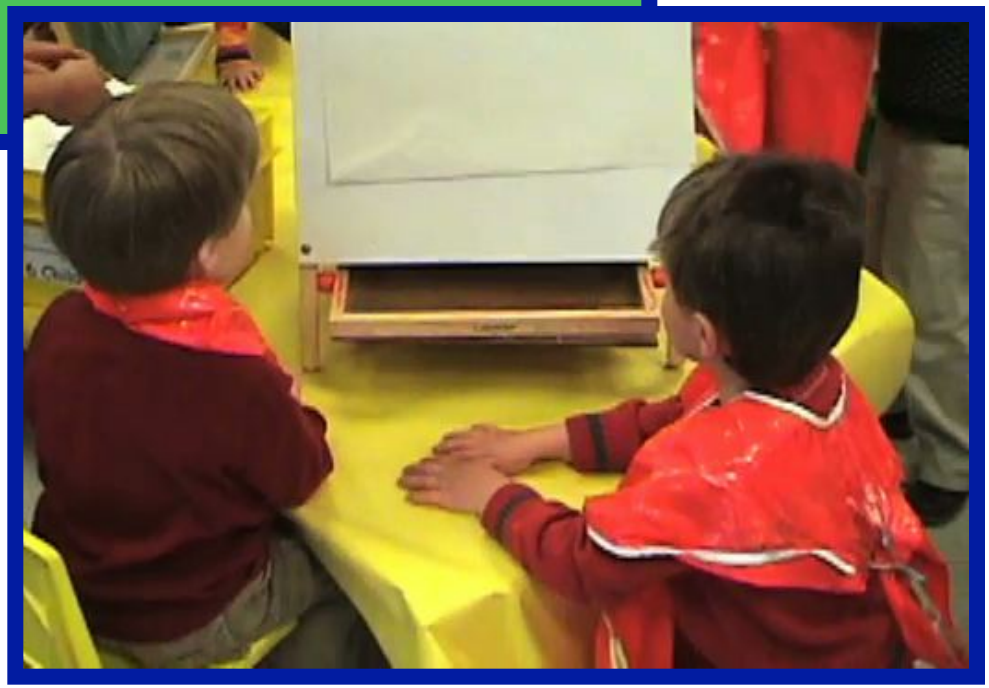
How to Evaluate Key Practice 12:

Am I doing it?

# Three Key Questions for Evaluating Embedded Instruction



Did learning trials occur in the activities in which we planned for them to occur?



# Planned Trials for Matthew

| | Follow 2-step directions | Move objects or himself in relation to another object or location | Holds marker or paintbrush and makes markings on paper | **Use 2-word phrases to request "more"** | How Many Trials? |
|---|---|---|---|---|---|
| Arrival | **2** | | | | **2** |
| Free Play | **4** | | | | **4** |
| Circle | | **3** | | | **3** |
| Outside | | **5** | | **3** | **8** |
| Snack | | | | **4** | **4** |
| Class Activity | | | **6** | | **6** |
| Departure | | **2** | | | **2** |
| Transitions | **2** | | | | **2** |
| How Many Trials? | **8** | **10** | **6** | **7** | |

# Planned Trials for Matthew

| | Mia | Matthew | Leo |
|---|---|---|---|
| **Arrival** | Verbally name colors - 3 | Follow a two-step direction relating to the immediate context - 2 | Move up and down stairs without assistance - 2 |
| **Free Play** | Name object in a picture or book- 2<br>Indicate big/little objects- 2 | Follow a two-step direction relating to the immediate context - 4 | Use a chair or table to stand up from the floor without adult support - 5<br>Will express his needs to adults and peers using 2-3 word sentences - 3 |
| **Circle** | Name object in a picture or book- 2 | Move objects or himself in relation to another object or location - 3 | Will express his needs to adults and peers using 2-3 word sentences - 2 |
| **Outside** | Ask peer or adult for a object- 3<br>Indicate big/little objects- 2 | Move objects or himself in relation to another object or location – 5<br>Use 2-word phrases to request more - 3 | Move up and down stairs without assistance - 2 |
| **Snack** | Ask peer or adult for a object- 2 | Use two word phrases to request more - 4 | Will express his needs to adults and peers using 2-3 word sentences - 3 |
| **Class Activity** | Verbally name colors - 4 | Make markings on paper - 6 | Use a chair or table to stand up from the floor without adult support - 2 |
| **Departure** | Indicate big/little objects- 2 | Move objects or himself in relation to another object or location - 2 | Move up and down stairs without assistance - 2 |
| **Transitions** | Verbally names colors - 2 | Follow a two-step direction relating to the immediate context - 2 | Use a chair or table to stand up from the floor without adult support - 4 |

# Implementation Data for Matthew

| |
|---|
| Learning Target:<br><br>Matthew will use 2-word phrases to request more (i.e., more of an activity, more food, more toys or objects) across a variety of activities without an adult model on 85% of opportunities each day for 4 consecutive days. |
| How many activities did you embed trials in? __2___<br>List the activities:<br>Outside and Snack |

| How many trials did you implement on this target? | How many times did the child perform the target behavior? |
|---|---|
| 6 | 4 |

| |
|---|
| What changes, if any, would you make to your plan? Why?<br><br>Provide additional trials during snack by implementing additional curricular modifications or environmental arrangements. There were "missed" opportunities. In addition, Matthew only used 2-word phrases 4 times, despite providing all components of the trial. He appears to need more practice on this target. |

Are the number of planned trials occurring in the activities?

# Implementation Data for Matthew

Learning Target:

Matthew will use 2-word phrases to request more (i.e., more of an activity, more food, more toys or objects) across a variety of activities without an adult model on 85% of opportunities each day for 4 consecutive days.

How many activities did you embed trials in? __2___
List the activities:

Outside and Snack

| How many trials did you implement on this target? | How many times did the child perform the target behavior? |
|---|---|
| 6 | 4 |

What changes, if any, would you make to your plan? Why?

Provide additional trials during snack by implementing additional curricular modifications or environmental arrangements. There were "missed" opportunities. In addition, Matthew only used 2-word phrases 4 times, despite providing all components of the trial. He appears to need more practice on this target.

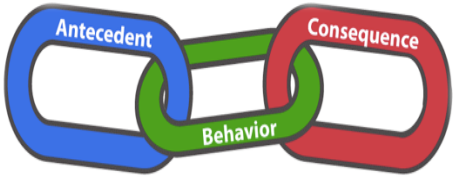
How many embedded learning trials were **complete**?

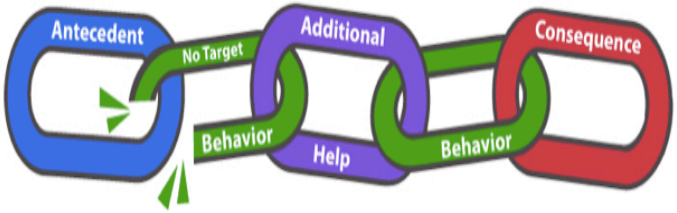
# Complete Learning Trials

- A-B-Cs specified for a learning trial have been implemented with accuracy
- Need to observe implementation of the A-B-Cs and determine if each component of a trial occurred
- Complete learning trials

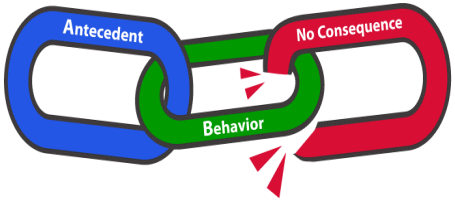
# Learning Trials

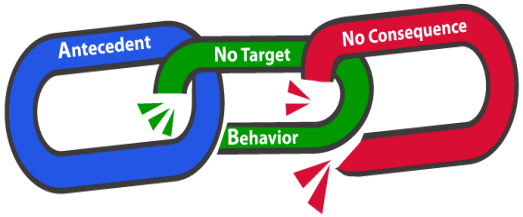
## Complete



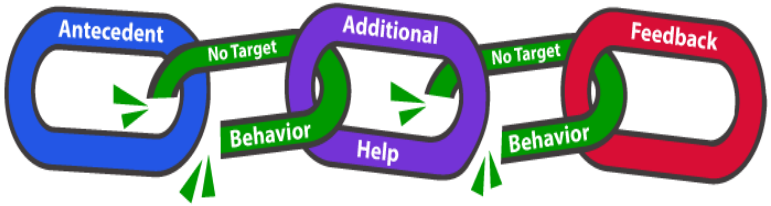




## Incomplete




## Correct but not Complete



# Implementation Data for Matthew

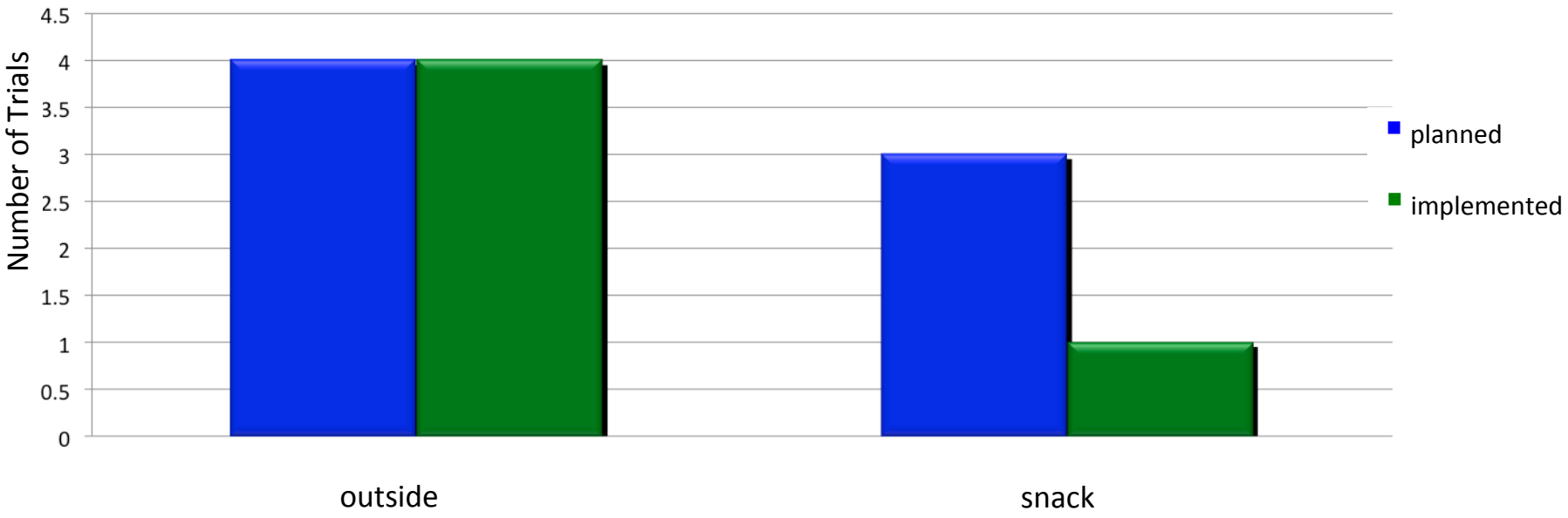
| | |
|---|---|
| Learning Target:<br><br>Matthew will use 2-word phrases to request more (i.e., more of an activity, more food, more toys or objects) across a variety of activities without an adult model on 85% of opportunities each day for 4 consecutive days. | |
| How many activities did you embed trials in? __2___<br>List the activities:<br>Outside and Snack | |
| How many trials did you implement on this target?<br><br>6 | How many times did the child perform the target behavior?<br><br>4 |
| What changes, if any, would you make to your plan? Why?<br><br>Provide additional trials during snack by implementing additional curricular modifications or environmental arrangements. There were "missed" opportunities. In addition, Matthew only used 2-word phrases 4 times, despite providing all components of the trial. He appears to need more practice on this target. | |

# It's Time for the Movies!

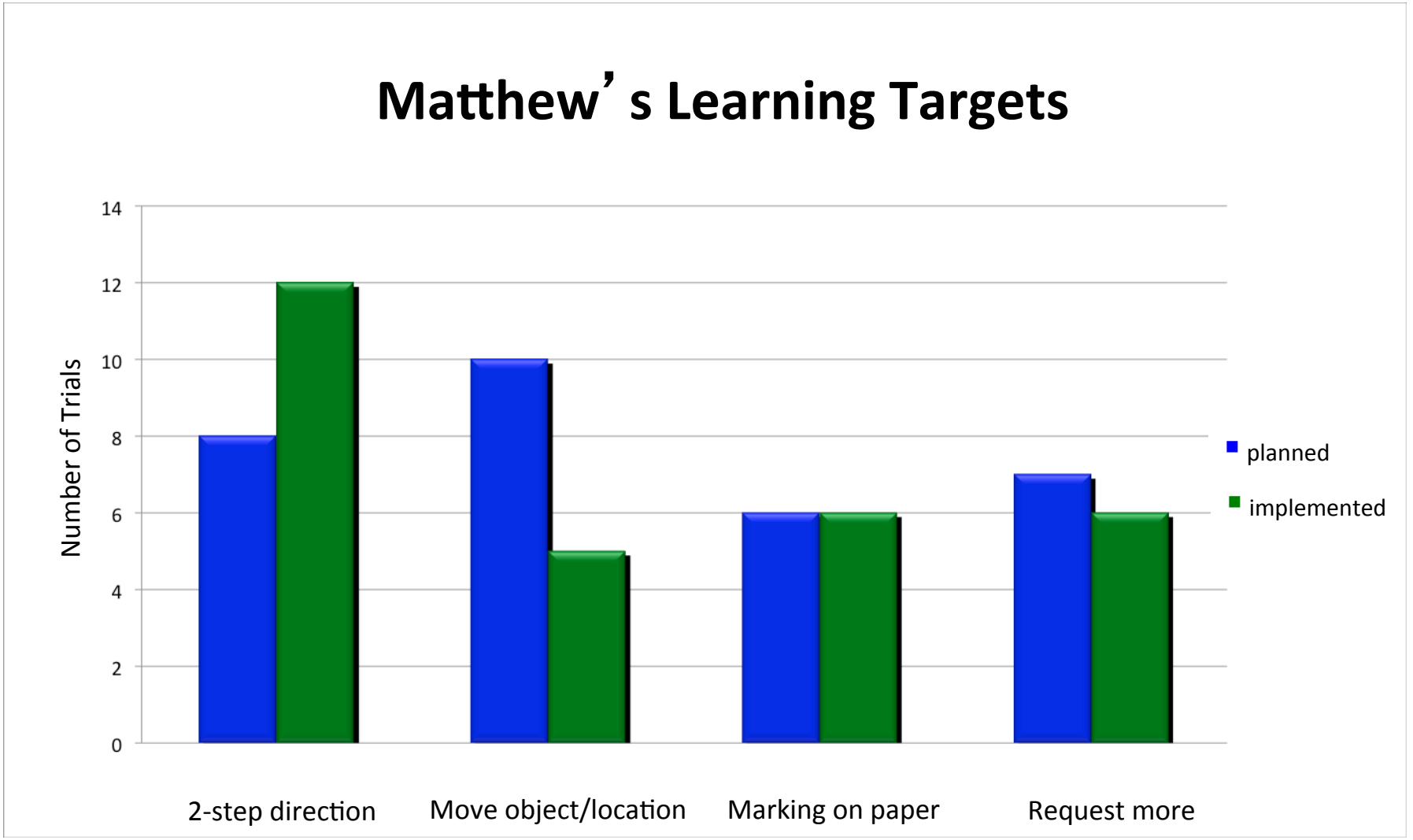

- What is the target behavior?
- When did you plan to implement trials?
- How did you plan to implement trials?
- Were the trials implemented complete or incomplete?

# Graphing Data

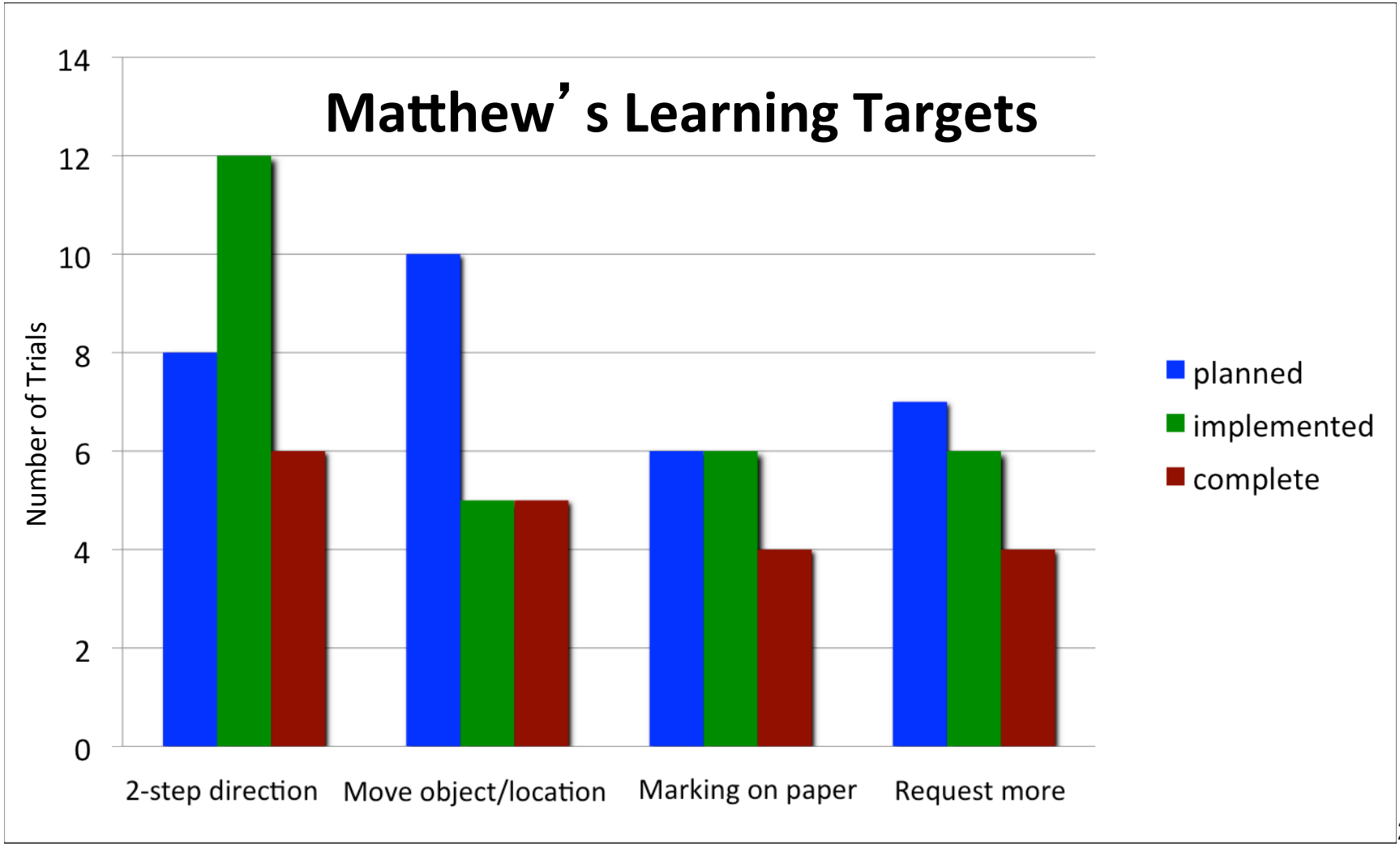
# One Learning Target Across Activities and Routines



# Compare Planned Versus Implemented Trials



# Compare Planned, Implemented, and Complete Trials



# Putting it All Together:
## Evaluating Implementation of Learning Trials

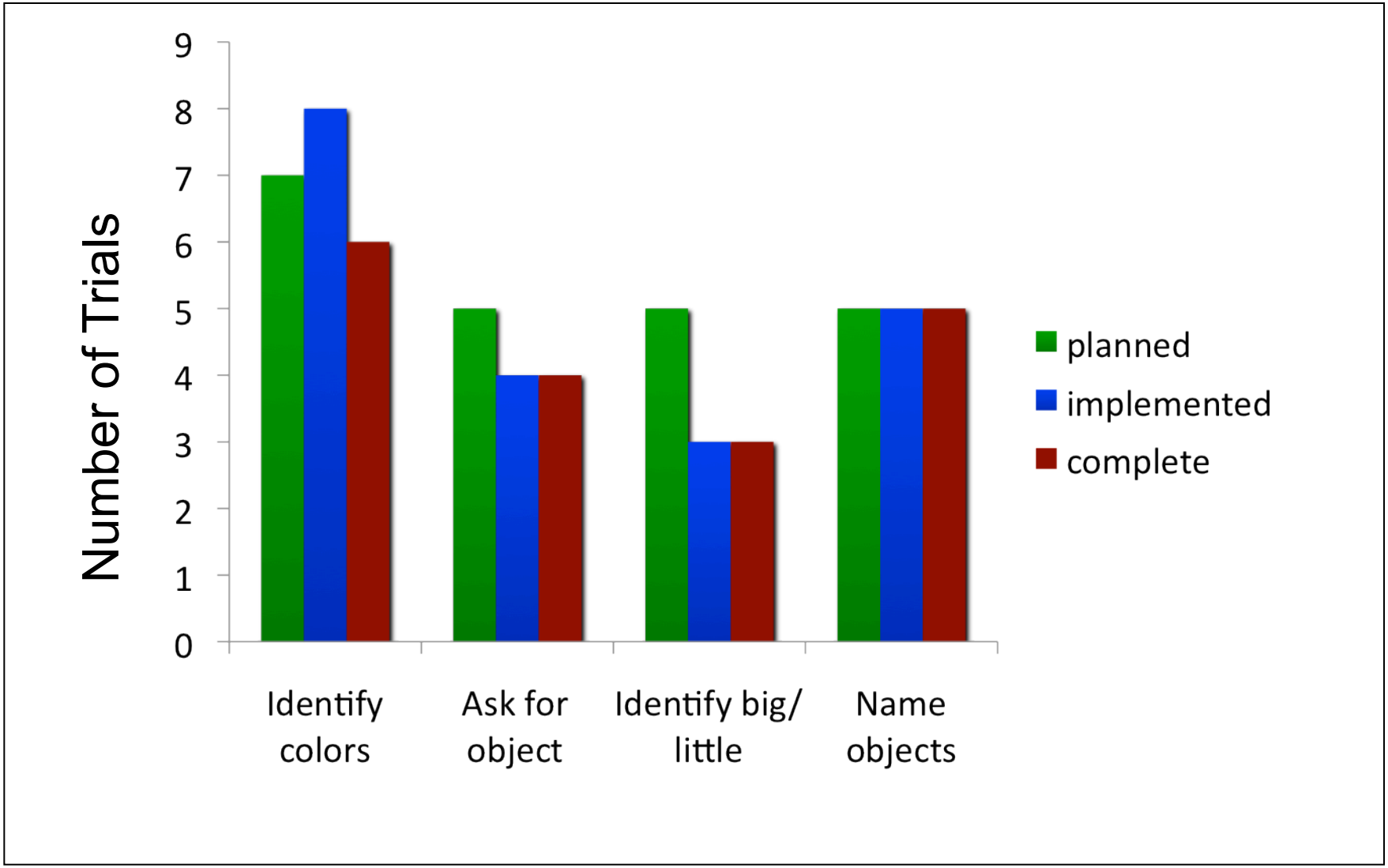
# Review Planned Trials

| **Mia** | Colors | Ask for Object | Big/Little | Name objects in pictures | How many trials? |
|---|---|---|---|---|---|
| Morning Activity | 3 | | | | 3 |
| Breakfast | | 2 | | | 2 |
| Circle | | | 2 | 2 | 4 |
| Table Games | 2 | 1 | | | 3 |
| Snack | | 2 | | | 2 |
| Centers | 2 | | 3 | 3 | 8 |
| How many trials? | 7 | 5 | 5 | 5 | |

# Counting Complete Learning Trials

# Graph the Data

# Compare Planned, Implemented, and Complete Trials



# Am I Doing It?
## Evaluating Implementation Fidelity

- Are learning trials occurring in the activities in which we planned for them to occur?
- Are the number of planned trials occurring in these activities?
- Are the components (the ABCs) implemented so that complete learning trials occur?

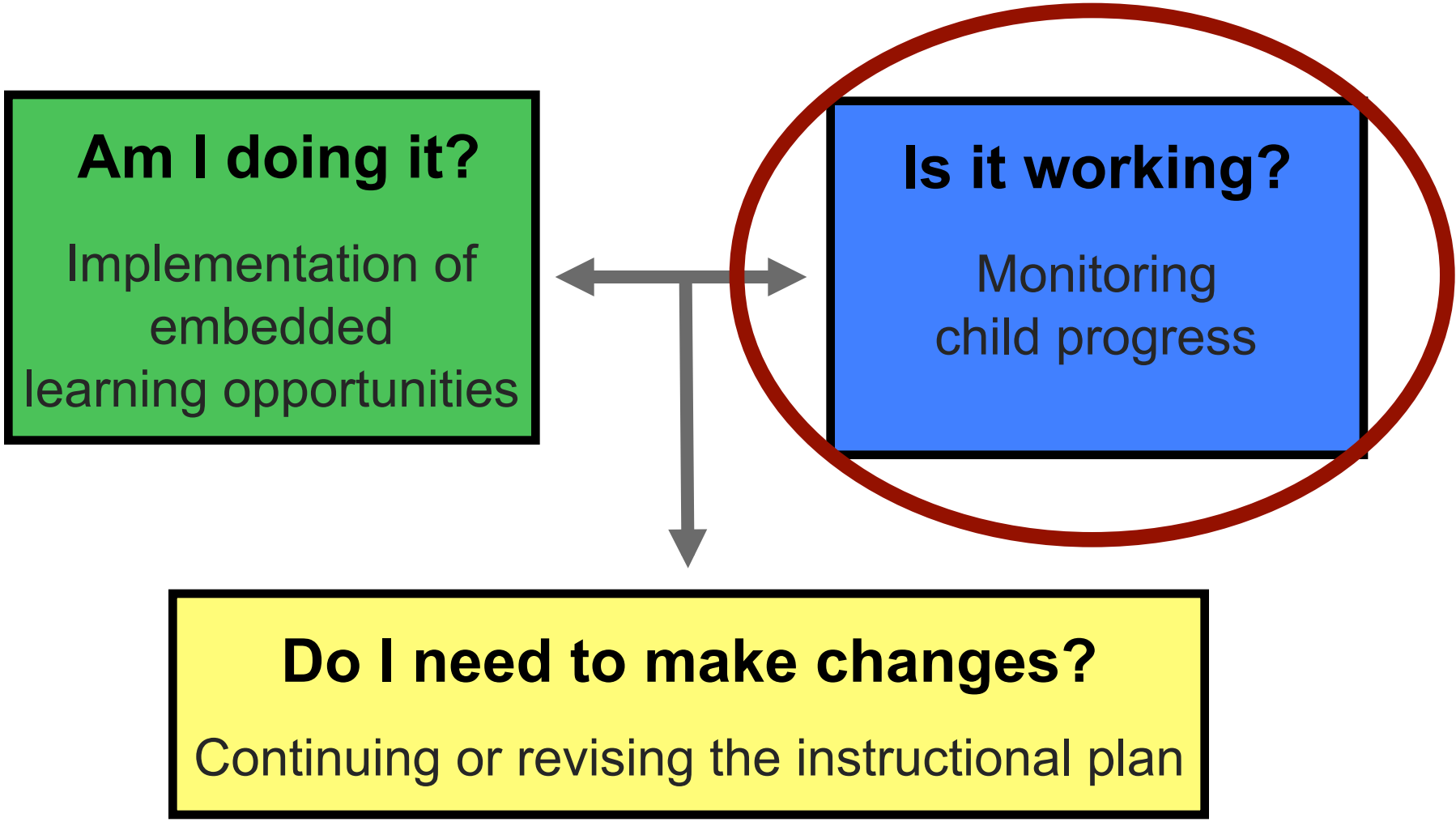
# Embedded Instruction for Early Learning

## *Tools for Teachers*

How to Evaluate Key Practice 13:

Is it working?

# Three Key Questions for Evaluating Embedded Instruction



# Considerations for Monitoring Child Progress

- What behaviors are targeted?
  What type of data do I need?
- How do I collect data for different types of behaviors?
- How often? When? Where?
  And who should collect data?
- How should I display, summarize, and analyze the data?

What behaviors are targeted?
What type of data do I need?

# Elements of Learning Targets

## Observable and Measurable

- Matthew will **move objects or himself in relation to another object or location**.
- Matthew will **follow two-step directions** (*e.g., hang up your coat and put away your lunch box or throw out the napkin and put the spoon in the sink*)

## Conditions and Criteria Clearly Specified

- Matthew will move objects or himself in relation to another object or location when asked by a teacher or peer across a variety of activities. Matthew will move himself or the object to the correct location after the first verbal request **on 80% of opportunities for 3 weeks**.
- Matthew will follow two-step directions given by an adult during arrival, free play, meal times, and transitions with a visual or gestural cue for the second direction. Matthew will complete two-step direction **within 2 minutes on three out of five opportunities across 2 days**.

# 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 |
| Time | **Duration** | length of time it takes to complete a response |
| | **Latency** | length of time from occurrence of specified antecedent to response (behavior) onset |
| Amount | **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 |

# Examples: Types of Data

| | |
|---|---|
| **Frequency** | Sarina will share or exchange at least three items or objects with peers in three activities for two consecutive days |
| **Latency** | Leo will remove coat and join class activities within 3 minutes of entering the classroom for three consecutive days |
| **Accuracy** | Maxford will jump by pushing off a supported surface with two feet simultaneously during all jumping activities with 80% correct jumps for two consecutive days |

How do I collect data for different types of behaviors?

# Ways to Collect Data (You can use multiple methods)

**Frequency**..... Count it

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

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

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

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

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

**Describe**..... Take notes or use rubrics

# Frequency: Count it

**Child**: Sarina

**Target**: Sarina will share or exchange at least 3 items or objects with peers in each of the 3 activities for 2 consecutive days

| | Activity | Occurrences | Total |
|---|---|---|---|
| 10/20/2009<br>Time: 9:00 - 9:15 | Center time | //// | 4 |
| 10/20/2009<br>Time: 10:30 - 10:45 | Outdoor play | // | 2 |

# Frequency Practice

**Child**: Sarina

**Target**: Sarina will share or exchange at least 3 items or objects with peers in each of the 3 activities for 2 consecutive days

| | Activity | Occurrences | Total |
|---|---|---|---|
| 10/20/2009<br>Time: 9:00-9:15 | Center time | //// | 4 |
| 10/20/2009<br>Time: 10:30-10:45 | Outdoor play | // | 2 |
| 10/20/2009<br>Time: 11:20-11:40 | Lunch | | |

# Latency: Time it

**Student**: Leo

**Target**: Will remove coat and join class activities within 3 minutes of entering the classroom for 3 consecutive days

| Day 1 | Day 2 | Day 3 | Day 4 |
|---|---|---|---|
| 8 | 8 | 8 | 8 |
| 7 | 7 | 7 | 7 |
| 6 | 6 | 6 | 6 |
| 5 | 5 | 5 | 5 |
| 4 | 4 | 4 | 4 |
| 3 | 3 | 3 | 3 |
| 2 | 2 | 2 | 2 |
| 1 | 1 | 1 | 1 |

numbers = minutes

# Latency Practice

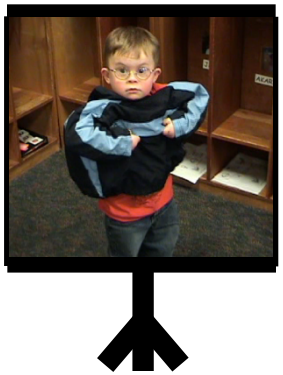
**Student**: Leo

**Target**: Will remove coat and join class activities within 3 minutes of entering the classroom for 3 consecutive days

| Day 5 | Day 6 | Day 7 | Day 8 |
|---|---|---|---|
| 8 | 8 | 8 | 8 |
| 7 | 7 | 7 | 7 |
| 6 | 6 | 6 | 6 |
| 5 | 5 | 5 | 5 |
| 4 | 4 | 4 | 4 |
| 3 | 3 | 3 | 3 |
| 2 | 2 | 2 | 2 |
| 1 | 1 | 1 | 1 |

numbers = minutes

# Accuracy Practice



**Student**: Maxford
**Target**: Maxford will jump by pushing off a supportive surface with two feet simultaneously during all jumping activities with 80% correct jumps for two consecutive days

| Maxford jumps throughout day: | | | | | | Percent Correct: | | | |
|---|---|---|---|---|---|---|---|---|---|
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** |
| | | | | | | | | | |

✓ = correct ✗ = not correct

# Accuracy: Percentage Correct

**Student**: Maxford

**Target**: Maxford will jump by pushing off a supportive surface with two feet simultaneously during all jumping activities with 80% correct jumps for two consecutive days

| Maxford jumps throughout day: 10/22/09 Percent Correct: 60% | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** |
| ✓ | ✓ | ✗ | ✗ | ✓ | ✓ | ✗ | ✗ | ✓ | ✓ |

✓ = correct ✗ = not correct

# Level of Support: Take Notes or Use Rating Form

**Student**: Lilly

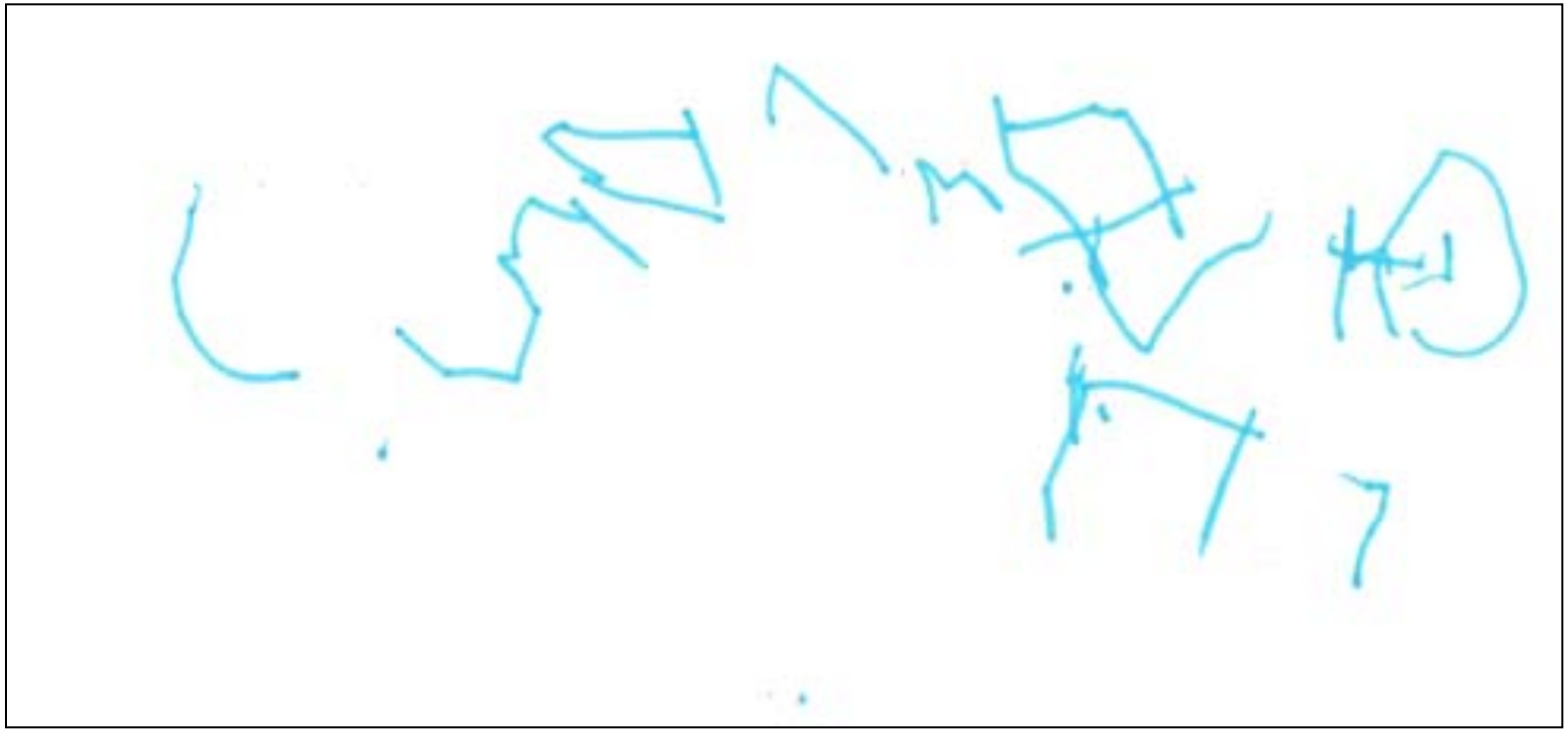
**Target**: Will use both hands to drink from a cup without spilling at snack, lunch, or at other times she has requested a drink

| Activity or Routine | Level of Support | | | |
|---|---|---|---|---|
| | I | V | PP | FP |
| Snack | | ✓✓ | ✓ | |
| After Outside | | | ✓✓ | ✓ |
| Lunch | ✓ | ✓✓ | | |

I = independent V = verbal prompt
PP = partial physical prompt FP = full physical prompt,

# Permanent Product: Collect Work Sample

**Student**: Mia
**Date**: 10/23/09
Copying letters in her name



# Describe: Take Notes or Use Rubric

| Copying Letters Rubric | | | |
|---|---|---|---|
| **Not Yet** | **Beginning** | **Developing** | **Well Developed** |
| • Does not choose to copy letters<br>• Does not copy letters so they are recognizable | • Tries to copy letters with prompting<br>• Letters are somewhat recognizable | • Willingly copies letters<br>• Letters copied are recognizable but may have reversals, incorrect sizing, spacing, or intermixing of upper and lower case | • Spontaneously copies letters with ease and enthusiasm<br>• Letters are uniform in height, regular in spacing, and seldom reversed<br>• Copying closely resembles original |

# Options for Collecting Data

- Live
- Recall
- Video
- Other people
- Difficult to do in a busy preschool classroom!
- Be creative!

# “Live” Data Collection

- Activity matrix on clipboard
- Activity matrix posted around classroom near activity, routine, or transition areas
- Blank paper and pencil
- Paper clips in pockets
- Poker chips of different colors
- Rubber bands on wrist
- Golf counter

# Recall Data Collection

- At end of activity, routine, or transition
- At end of day
- Accuracy of recall counts?

# Video Data Collection

- Using a video camera
- Deciding what and when to record

- Counting implementation of trials using a record sheet
- Video also useful for examining the quality of embedded learning trials by examining implementation of ABC components

# Other People Help with Data Collection

- Teaching assistant or other adults
- Provide them your activity matrix or implementation of learning trial record sheet to record

How often? When? Where? And who should collect 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 to Collect Data?

**When the skill is being taught:**

- In which activities does instruction occur?
- Is instruction spaced, massed, or distributed?

**When the skill is likely to be needed:**

- Are there times or activities when the skill is needed?

**When the skill is likely to occur:**

- How many opportunities will there be to collect data on the skill?

# Where to Collect Data?

**During activities specified on the activity matrix**

- Acquisition
- Maintenance

**Authentic opportunities to use the skill**

- Mastery

**During activities in which instruction has not occurred**

- Generalization
- Adaptation

# Who Will Collect Data?

**Data can be collected by:**

- Teachers
- Assistants
- Therapists

- Teacher creates data collection matrix
- Combines with activity matrix
- Specifies who collects data

# Data Collection Matrix

| Schedule | Mia | Matthew |
|---|---|---|
| **Arrival** | Verbally name colors<br>**Teacher-T,TH** | Follow a two-step direction<br>**Teacher-W,TH** |
| **Free Play** | Name object in a picture or book<br>Indicate big/little objects<br>**Assistant-Weekly** | Follow a two-step direction<br>**Teacher-W,TH** |
| **Circle** | Name object in a picture or book<br>**Assistant-Weekly** | Move objects or himself in relation to another object or location<br>**Team-Rotate Every 3rd Day** |
| **Snack** | Ask peer or adult for a object<br>**Team-Daily (1 week)** | Use two word phrases to request more<br>**Teacher -Weekly** |
| **Class Activity** | Verbally name colors<br>**Teacher-T,TH** | Hold adapted paint brush and make markings<br>**Assistant M,W,F** |
| **Departure** | Indicate big/little objects<br>**Assistant-Weekly** | Move objects or himself in relation to another object or location<br>**Team-Rotate Every 3rd Day** |

**Instructional Plan** Child's Name:___Matthew_____ Date:_____

**Antecedent**

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

Say "Matthew (give first direction) then (give second direction)
Use visual cues to show Matthew what he should do next or point to where he should go.

**Behavior**

**Child demonstrates target behavior**

Matthew completes first direction and then completes second direction

**Consequence**

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

Say "Nice work, Matthew, you (repeat the directions)."
Give Matthew a high five.

Child does NOT demonstrate the target behavior

**What additional help (prompts) do you provide?**

Show Matthew a picture of what he should do next or point to where he should go. If he still does not complete directions, use a hand over hand prompt.

**Behavior**

Child demonstrates the target behavior

**Consequence**

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

"Nice work! You (repeat directions)

**Behavior**

Child does NOT demonstrate the target behavior

**Consequence**

**What feedback do you provide to end the trial?**

"You should have (repeat directions). We will try again"

**Evaluation**

**Type of data:** Latency
**Data Collection Format:** Record how long it takes Matthew to complete both directions and record level of support needed.

Instructional Plan Child's Name: Matthew Date: _____

**Antecedent**

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

Say "Matthew, put the (object) in/on/under/next to the (location) or Matthew stand/sit in front of/behind/next to (location)"

**Behavior**

**Child demonstrates target behavior**

Matthew places the object in the correct location or Matthew moves himself to the correct location.

**Consequence**

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

Say "Good listening Matthew you (state his action in relation to an object or location)."

Child does NOT demonstrate the target behavior

**What additional help (prompts) do you provide?**

Say "Matthew, I asked you to (repeat the request), that's over here (point to or show location.)"

**Behavior**

Child demonstrates the target behavior

**Consequence**

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

"Good listening, Matthew, you (state action in relation to object or location)"

**Behavior**

Child does NOT demonstrate the target behavior

**Consequence**

**What feedback do you provide to end the trial?**

"Look Matthew, (location) is here"

**Evaluation**

**Type of data**: Accuracy

**Data Collection Format:** Tally the number of opportunities each day and calculate how many were correct divided by the total number of opportunities to get a percentage of correct opportunities. Record whether a prompt was provided.

Instructional Plan Child's Name:___Matthew____ Date:_____

**Antecedent**

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

Materials are on the table and ready for children to use. Peers are using the materials.

Say "Matthew we are going to make a picture, pick up the marker (or similar) and start your drawing."

**Behavior**

**Child demonstrates target behavior**

Matthew picks up and holds a marker, paintbrush, or similar utensil to make markings on a page. (Markings can be lines, strokes, dots, circles etc.)

**Consequence**

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

Say "Great job making your picture Matthew. I like how you are drawing."

Child does NOT demonstrate the target behavior

**What additional help (prompts) do you provide?**

Say, "Matthew see how (peer) is drawing? Let me see you draw." If he does not, provide hand-over hand help to draw.

Behavior

Child demonstrates the target behavior

Consequence

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

Say "Great job making your picture Matthew. I like how you are drawing.

Behavior

Child does NOT demonstrate the target behavior

Consequence

**What feedback do you provide to end the trial?**

Say "We will try again another time."

**Evaluation**

**Type of data:** Frequency

**Data Collection Format:** For each trial, record whether Matthew makes marks or not and if/what type of prompt was required

Instructional Plan Child's Name: Matthew Date: _____

**Antecedent**

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

Provide some but not all materials or toys to Matthew so he will ask for more, OR stop an ongoing activity (e.g., swinging). Wait expectantly (about 3 seconds) for Matthew to request.

Ask Matthew, "What do you want?"

**Behavior**

**Child demonstrates target behavior**

Will verbally request more by saying "more ____" or "____ again"

**Consequence**

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

Provide Matthew with more and provide descriptive praise, such as "Great, you asked for more."

Child does NOT demonstrate the target behavior

**What additional help (prompts) do you provide?**

Provide a model ("Say 'want more'") Then ask, "What to do you want?" again.

Behavior

Child demonstrates the target behavior

**Consequence**

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

Provide Matthew with more and provide descriptive praise.

Behavior

Child does NOT demonstrate the target behavior

**Consequence**

**What feedback do you provide to end the trial?**

If you want more, you should say "more ____"

**Evaluation**

**Type of data:** Accuracy

**Data Collection Format:** Tally the number of opportunities for Matthew to ask for more and the number of times he did ask for more either with or without a prompt and calculate percent correct

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

# Data Displays

**We can use:**

- An outline of written notes
- Tables with tally marks
- Pie Charts
- Graphs

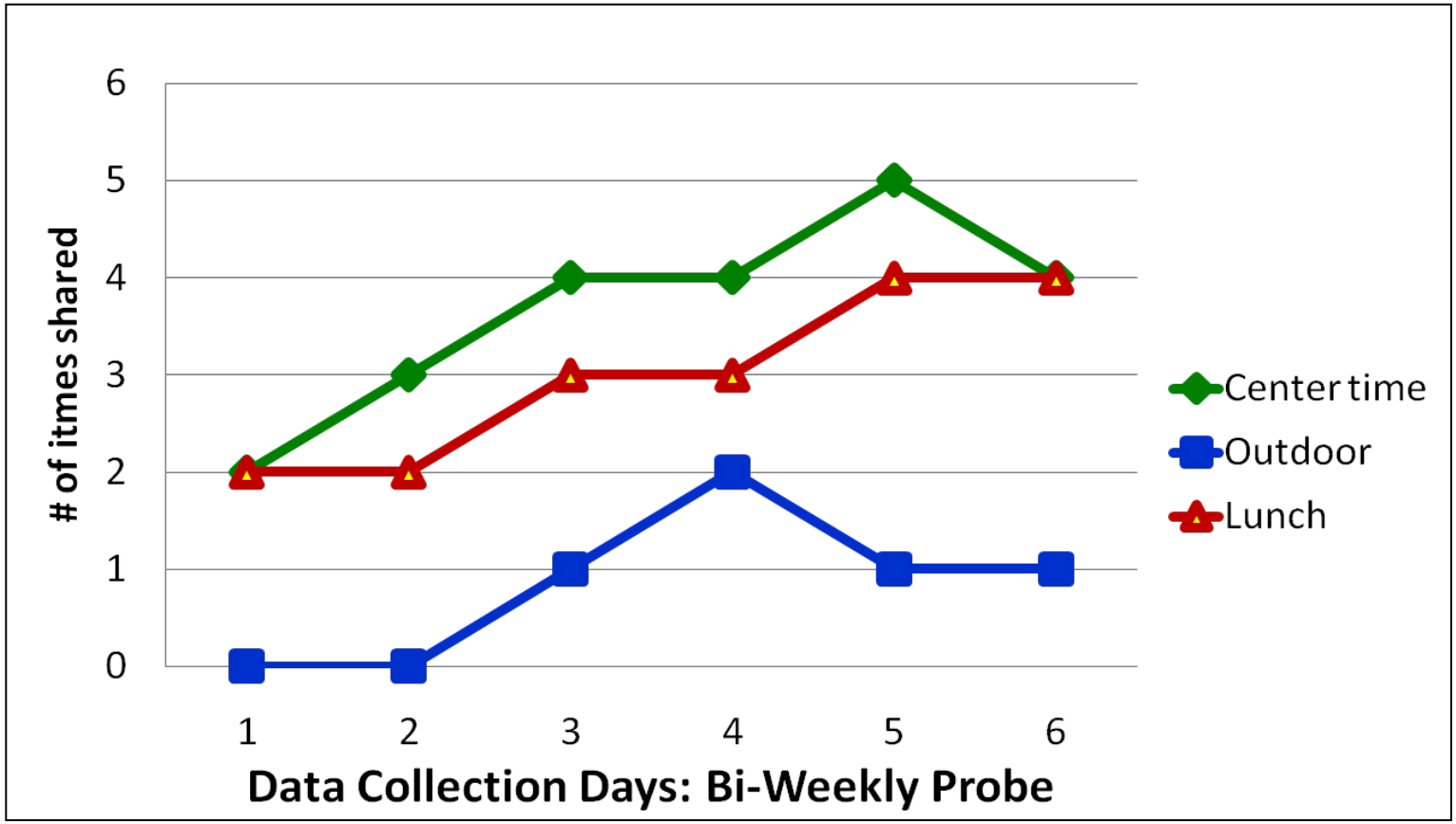
# Analyzing: What Does the Data Tell Us?

- Which behaviors the child does independently
- What types of supports, adaptations, or assistance the child needs to perform a specific behavior
- How long the child performs the behavior
- How accurately the child performs the behavior
- The conditions under which the behavior occurs
- When interventions are successful
- Whether children are making progress
- What influences child performance

# Data Display: Line Graph

**Student**: Sarina

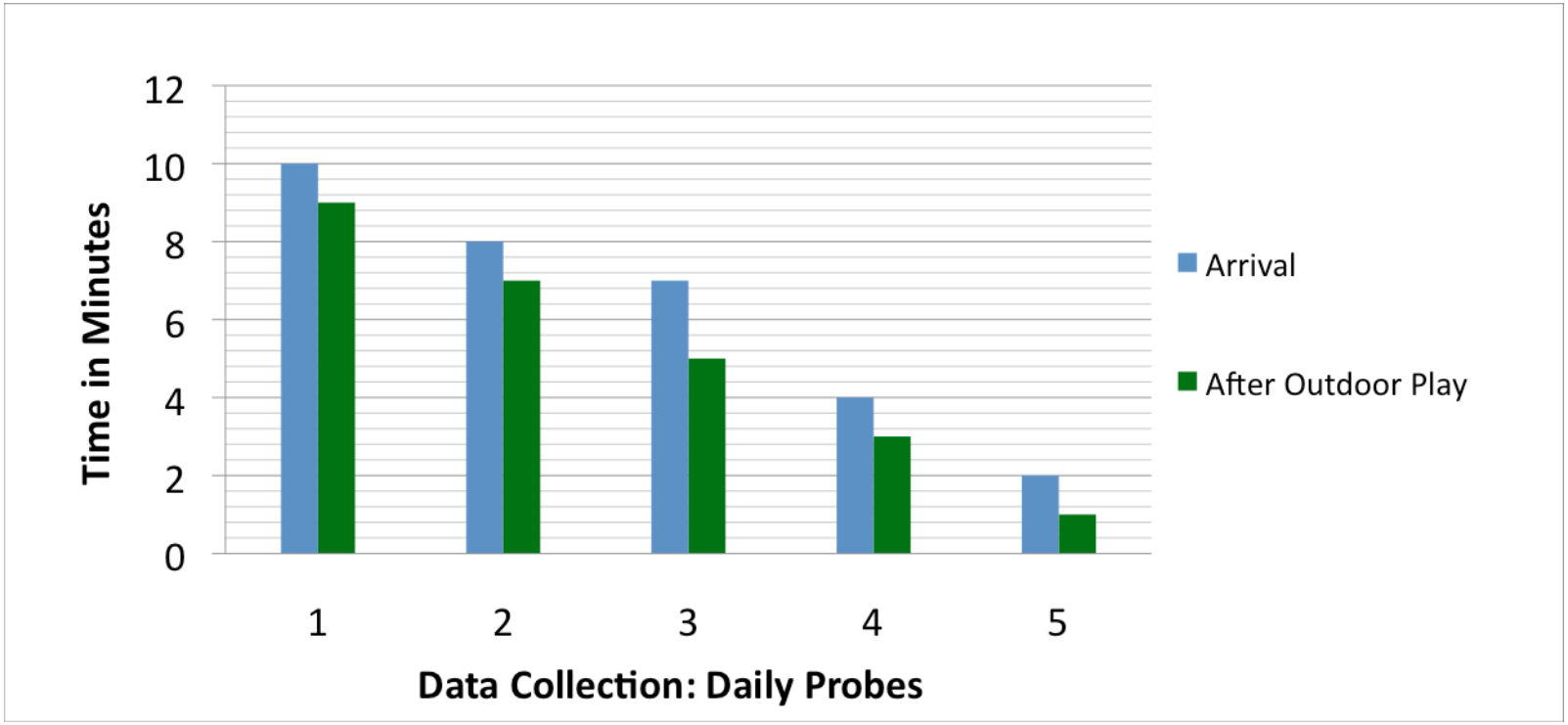
**Target**: Sarina will share or exchange objects with peers three times across three activities for two days



# Data Display: Bar Graph

**Student**: Leo

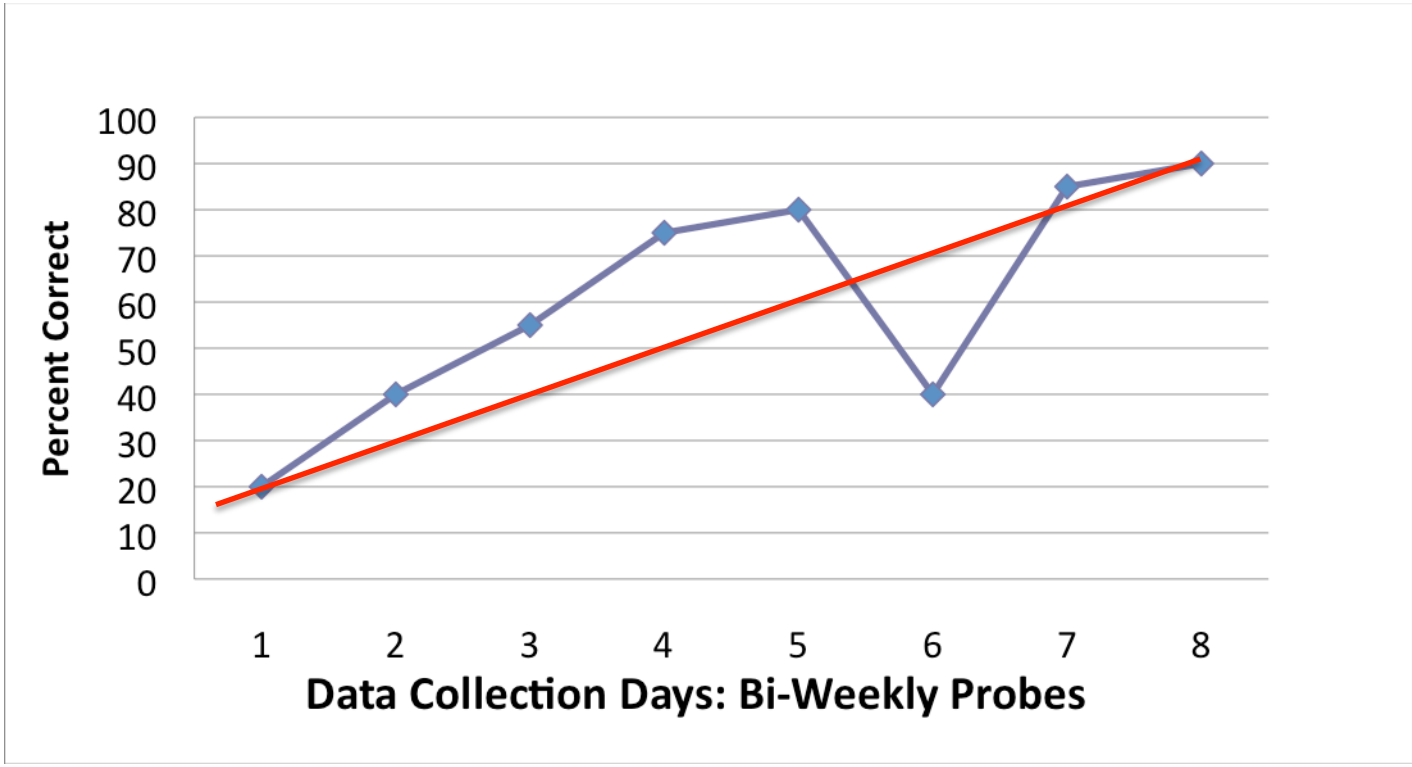
**Target**: Will remove coat and join class activities within 3 minutes of entering the classroom for 3 consecutive days



# Data Display: Line Graph

**Student**: Maxford

**Target**: Maxford will jump by pushing off the ground with two feet simultaneously during all jumping activities with 80% correct jumps for two consecutive days



# Interpretive Summary of Data

- Creating numerical summaries
- Creating narrative summaries
- A good summary provides key information on child progress in relation to the learning target

# Matthew's Performance Data

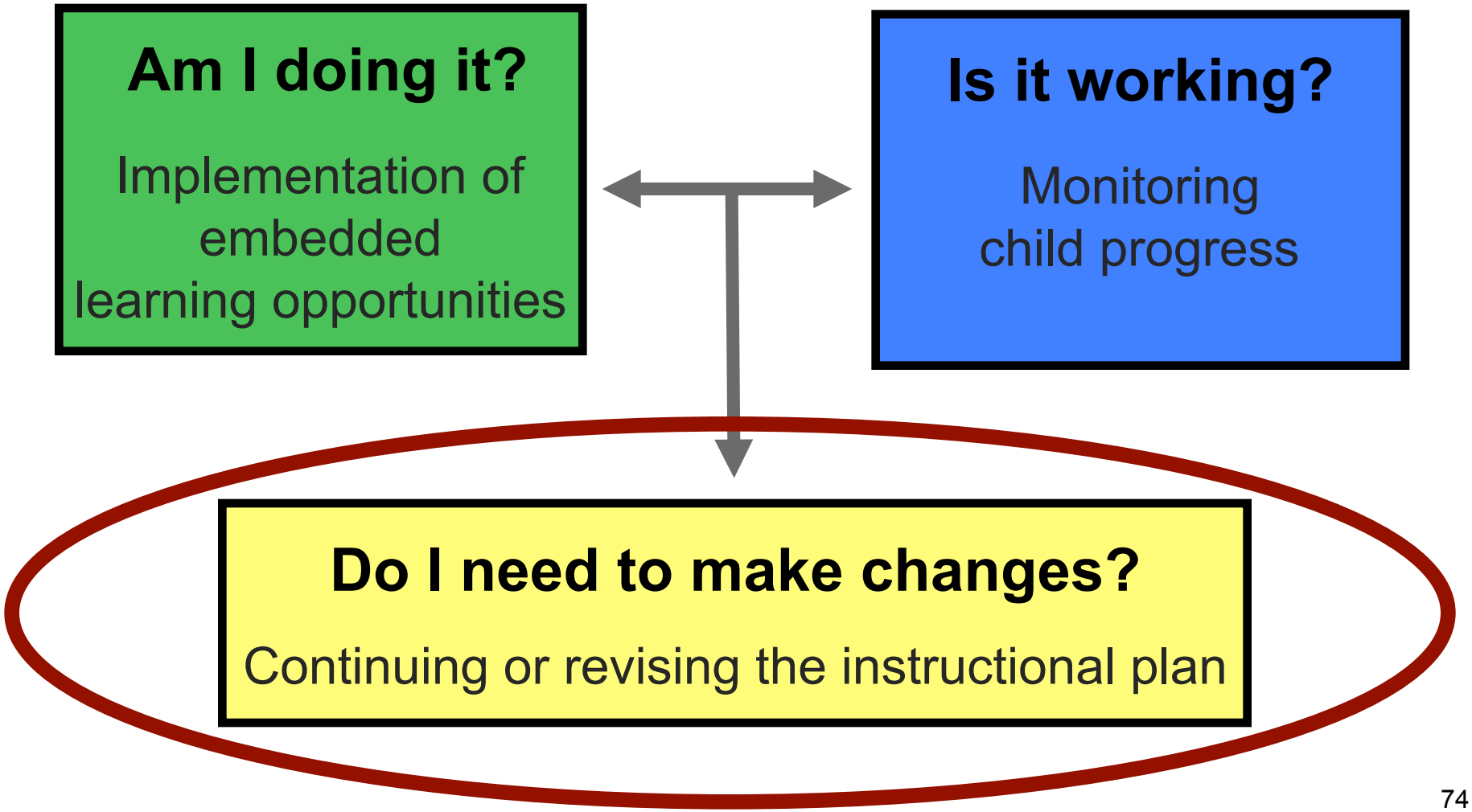
# Embedded Instruction for Early Learning

## *Tools for Teachers*

How to Evaluate Key Practice 14:

Do I need to make changes?

# Three Key Questions for Evaluating Embedded Instruction



# Data-Based Decision Making

## Data to consider:

- Implementation data, including trials and ABC components
- Child progress data

## Possible Data-Based Decisions:

- Change where and how many learning opportunities occur
- Consider changing antecedents, additional help, or consequences
- Consider changing the behavior targeted

# Implementation Data for Matthew

| Learning Target: |
| --- |
| Matthew will use 2-word phrases to request more (i.e., more of an activity, more food, more toys or objects) across a variety of activities without an adult model on 85% of opportunities each day for 4 consecutive days. |
| How many activities did you embed trials in? __2___<br>List the activities: Outside and Snack |

| How many trials did you implement on this target? | How many times did the child perform the target behavior? |
| --- | --- |
| 6 | 4 |

| What changes, if any, would you make to your plan? Why? |
| --- |
| Provide additional trials during snack using environmental arrangements. There were "missed" opportunities. In addition, Matthew only used 2-word phrases 4 times, despite providing all components of the trial. He appears to need more practice on this target. |

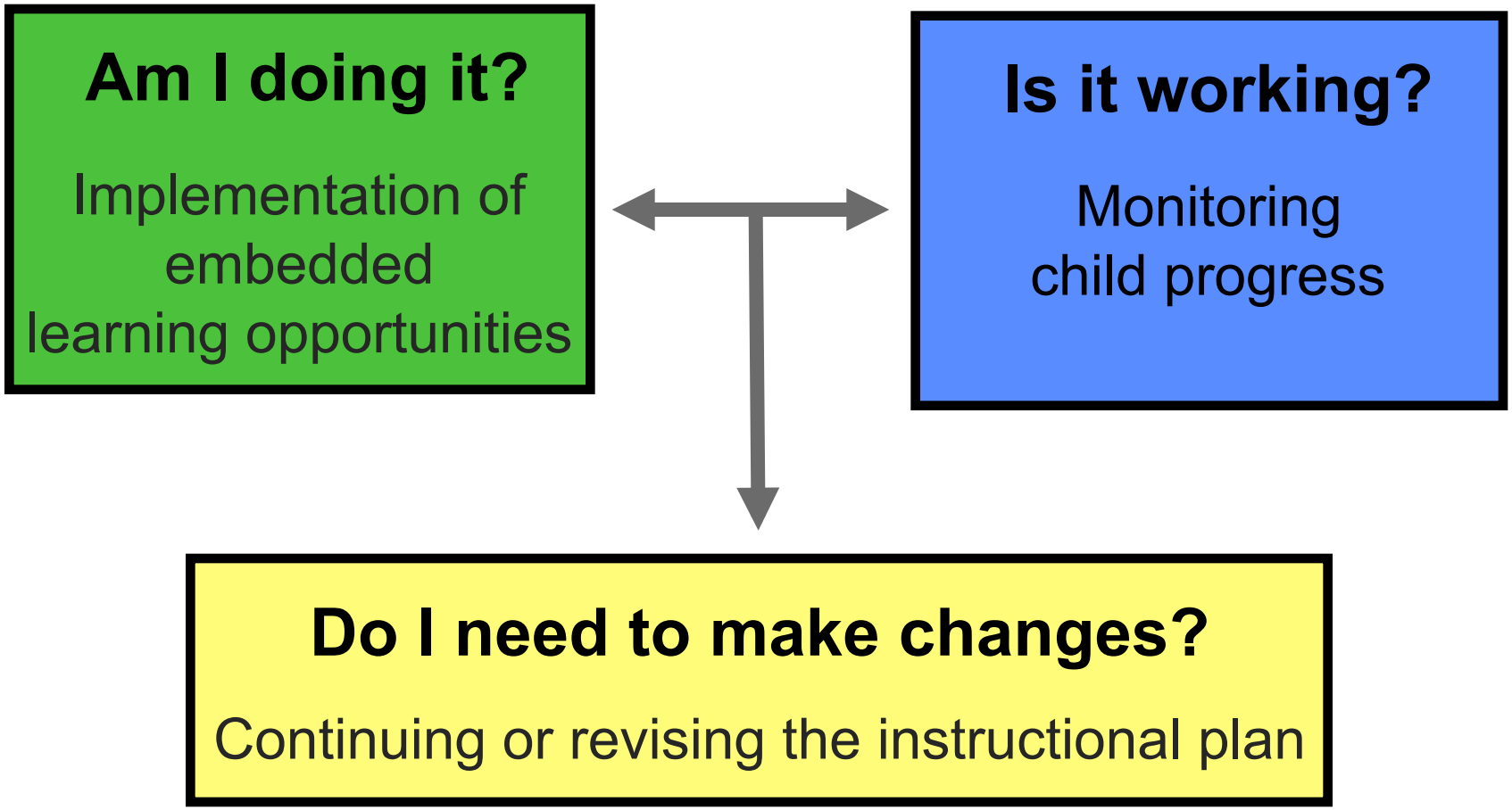
# Make a Decision for Matthew

# Embedded Instruction for Early Learning

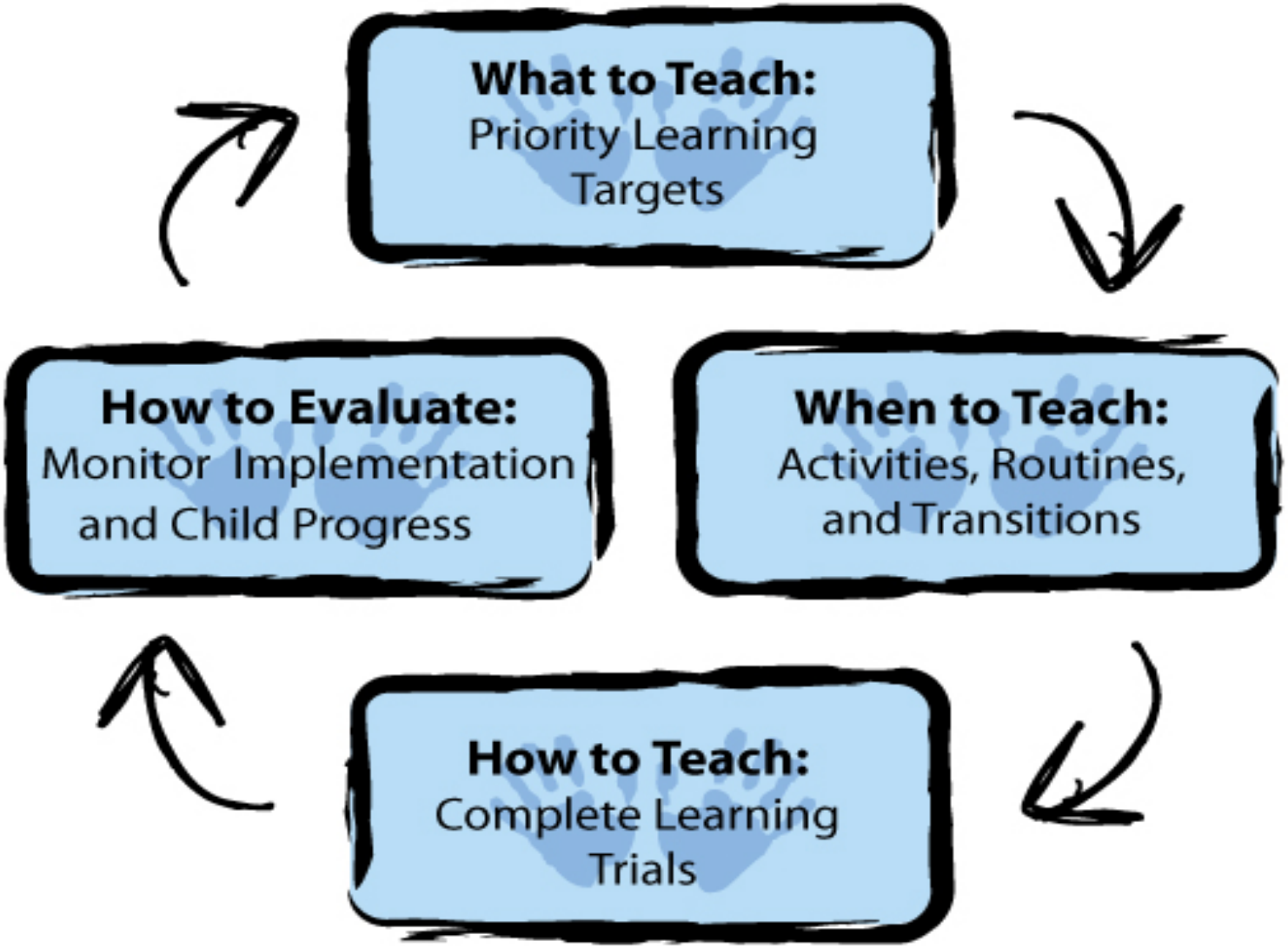
## *Tools for Teachers*

Wrap-Up

# Wrap-Up


Am I doing it?
Implementation of embedded learning opportunities
Is it working?
Monitoring child progress
Do I need to make changes?
Continuing or revising the instructional plan

# Making Changes

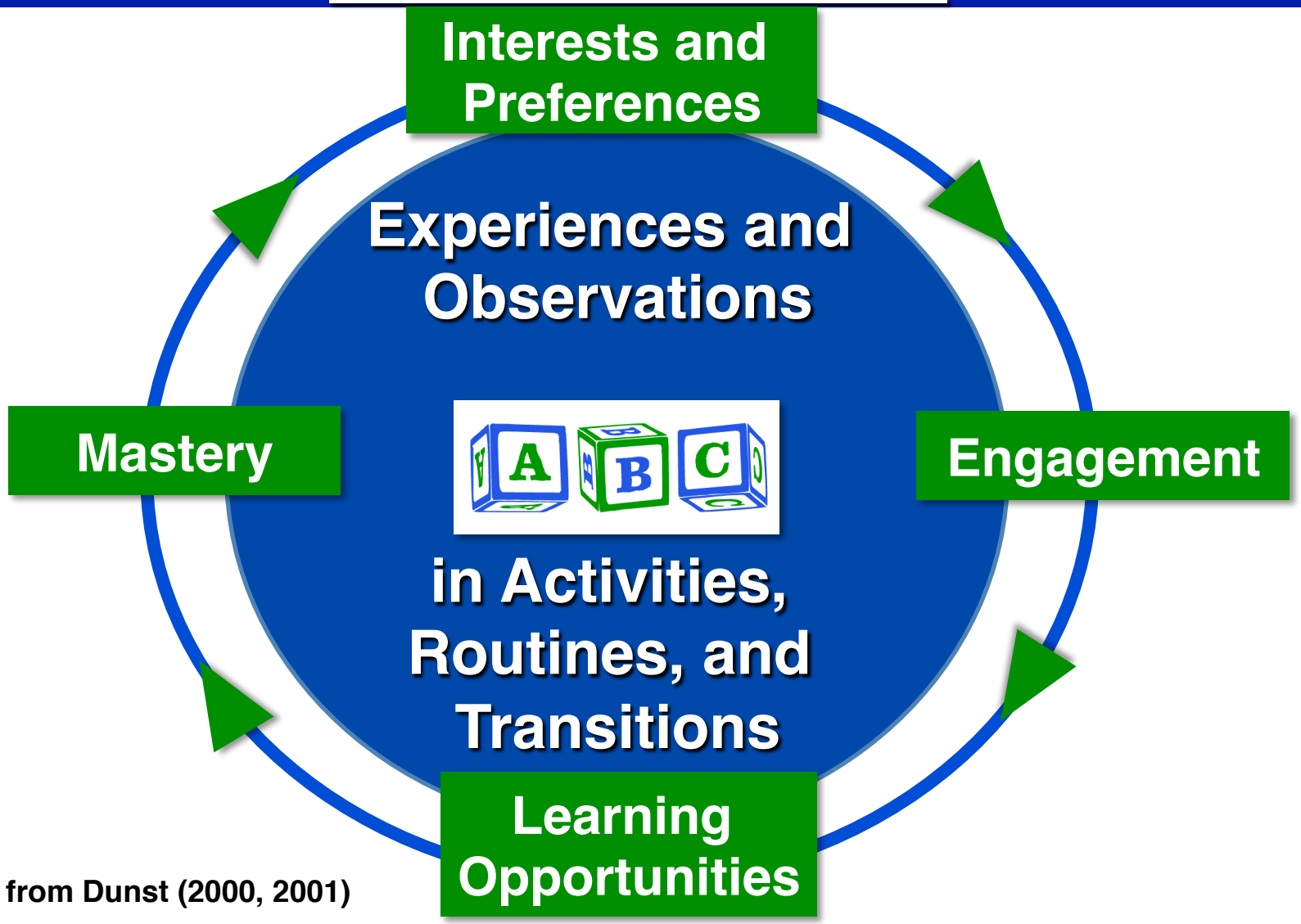


# Embedded Instruction for Early Learning

## *Tools for Teachers*

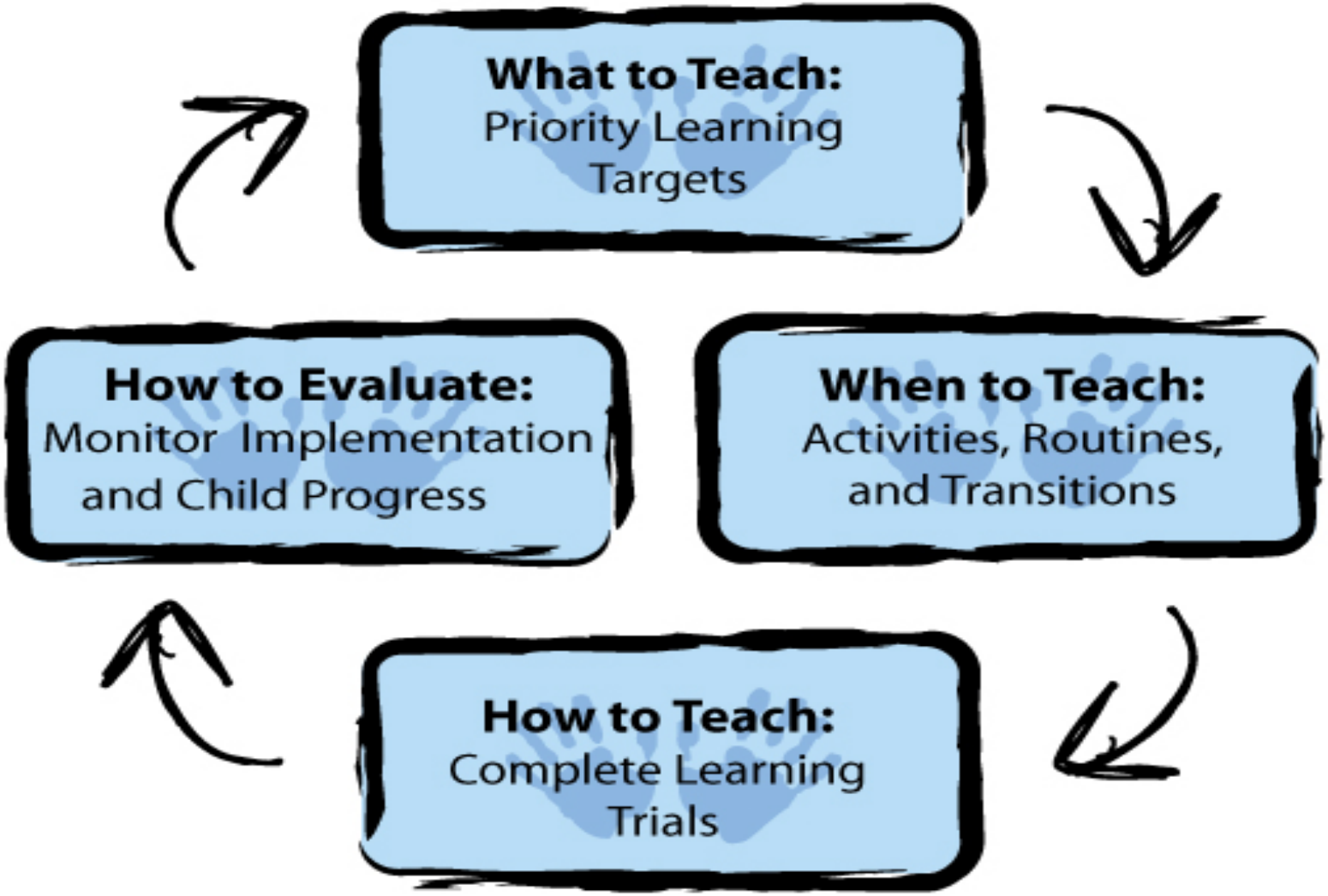
# Looking Back (and Ahead!)

# Foundation for Embedded Instruction: How Children Learn




Adapted from Dunst (2000, 2001)

# Key Components



# 14 Key Practices for Embedded Instruction

| | |
|---|---|
| **What to Teach** | 1. Activities to support engagement and learning of all children |
| | 2. Activity-focused assessment to inform priority instructional learning targets |
| | 3. Break down larger goals |
| | 4. Write priority learning targets |
| **When to Teach** | 5. Select activities, routines, and transitions for embedded instruction |
| | 6. Plan which and how many instructional learning trials o implement |
| | 7. Develop an activity matrix |
| **How to Teach** | 8. Use systematic instructional strategies with fidelity |
| | 9. Implement instructional learning trials that include an antecedent, additional help to elicit the learning target behavior if the behavior does not occur, and an appropriate consequence |
| | 10. Implement massed, spaced, or distributed instructional learning trials |
| | 11. Implement frequency, intensity, and duration of instruction needed to address phase and pace of learning |
| **How to Evaluate** | 12. Implement strategies to determine *Am I doing it?* |
| | 13. Implement strategies to determine *Is it working?* |
| | 14. Make data-based decisions about whether changes are needed |

# High Quality Activities

# Embedded Instruction Builds on Intentional Teaching

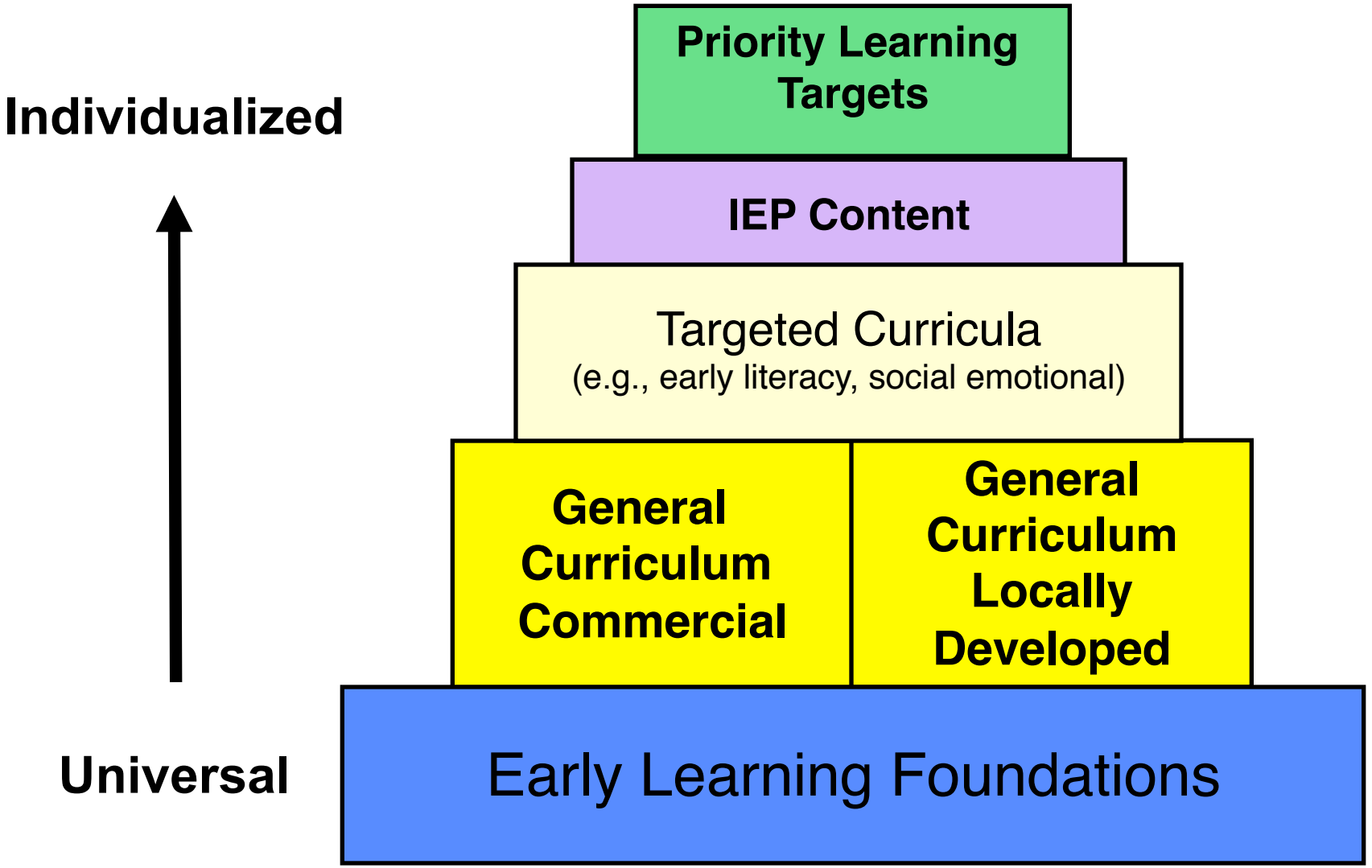
**Intentional Teaching**

- 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

**Embedded Instruction**

- What to Teach
- Where and When to Teach
- How to teach
- How to Evaluate

# What to Teach



# Identifying Learning Targets

**First Priority Learning Target**
"Orients book correctly"

**Next Priority Learning Target**
"Turns pages one at a time"

**Next Priority Learning Target**
"Touches and vocalizes or verbalizes at picture"

**Individualized Goal**
"Demonstrate functional use of books"

**FL Preschool Foundations**
**IV: Language, Communication, and Emergent Literacy**
**F: Emergent Reading**
**1.b. Child interacts appropriately with books and other materials in a print-rich environment.**

# Priority Learning Targets

# Activity Matrix

| | Mia | Matthew | Leo |
|---|---|---|---|
| **Arrival** | Verbally name colors - 3 | Follow a two-step direction relating to the immediate context - 2 | Move up and down stairs without assistance - 2 |
| **Circle** | Name object in a picture or book- 2 | Move objects or himself in relation to another object or location - 3 | Will express his needs to adults and peers using 2-3 word sentences - 2 |
| **Outside** | Ask peer or adult for a object- 3<br>Indicate big/little objects- 2 | Move objects or himself in relation to another object or location – 5<br>Use 2-word phrases to request more - 3 | Move up and down stairs without assistance - 2 |
| **Snack** | Ask peer or adult for a object- 2 | Use two word phrases to request more - 4 | Will express his needs to adults and peers using 2-3 word sentences - 3 |
| **Class Activity** | Verbally name colors - 4 | Hold adapted paint brush and make markings - 4 | Use a chair or table to stand up from the floor without adult support - 2 |
| **Departure** | Indicate big/little objects- 2 | Move objects or himself in relation to another object or location - 2 | Move up and down stairs without assistance - 2 |
| **Transitions** | Verbally names colors - 2 | Follow a two-step direction relating to the immediate context - 2 | Use a chair or table to stand up from the floor without adult support - 4 |

Instructional Plan Child's Name: Matthew Date: _____

**Antecedent**

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

Provide some but not all materials or toys to Matthew so he will ask for more, OR stop an ongoing activity (e.g., swinging). Wait expectantly (about 3 seconds) for Matthew to request.

Ask Matthew, "What do you want?"

**Behavior**

**Child demonstrates target behavior**

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**Consequence**

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

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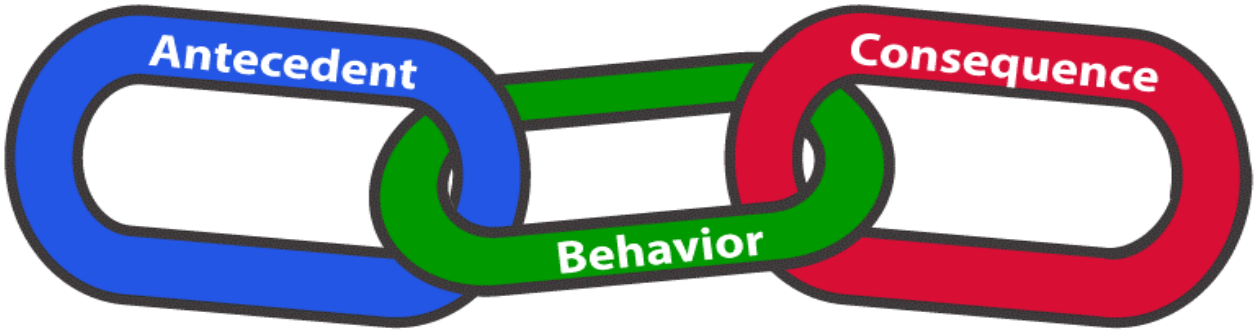
**Evaluation**

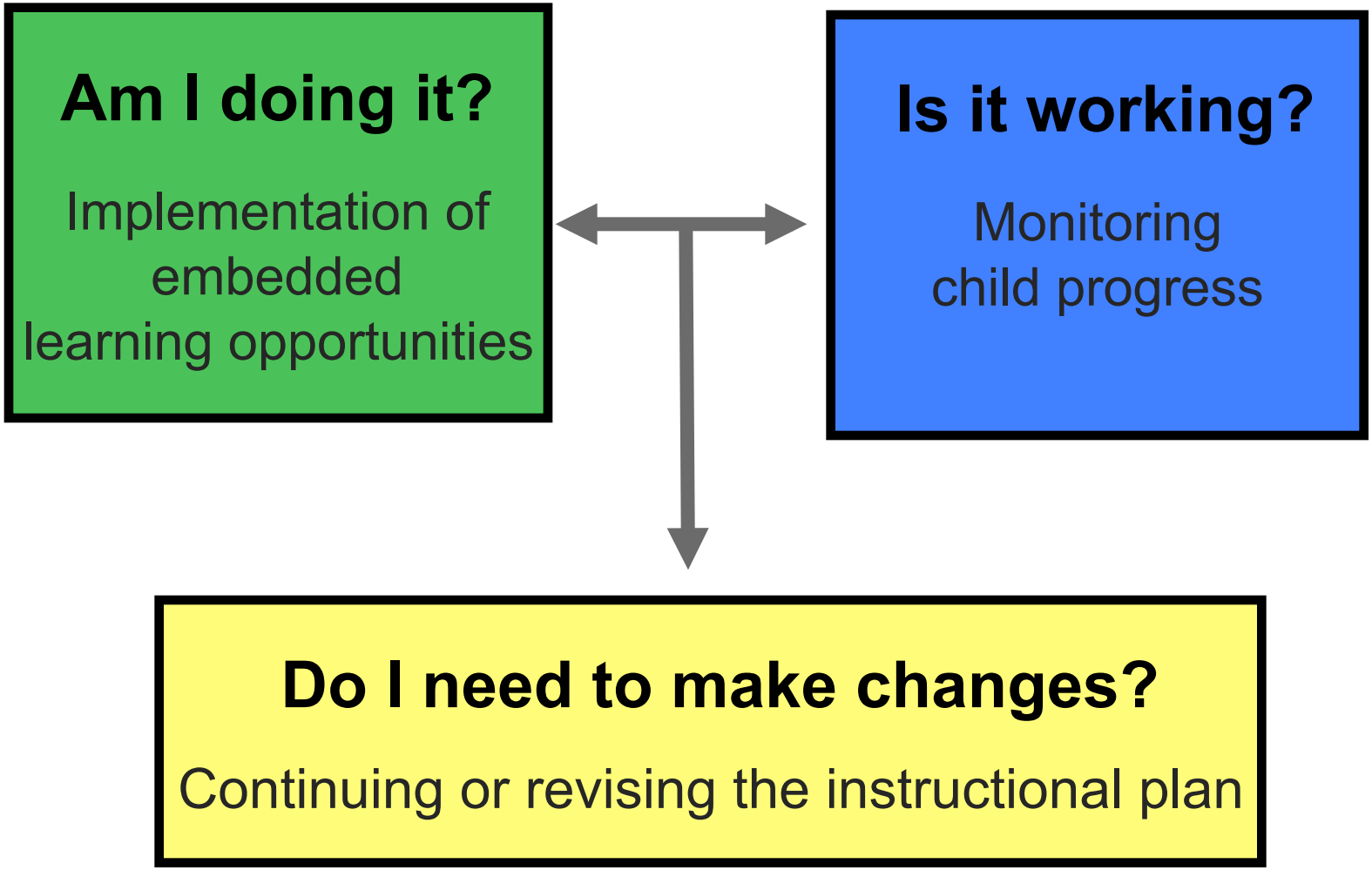
Type of data: Accuracy

Data Collection Format: Tally the number of opportunities for Matthew to ask for more and the number of times he did ask for more either with or without a prompt and calculate a percent correct.

# Complete Learning Trials




# Evaluating Embedded Instruction



# A Look Ahead. . .

# Embedded Instruction for Early Learning

## *Tools for Teachers*

Tools to support..
**What to Teach,**
**When to Teach,**
**How to Teach, and**
**How to Evaluate!**

*Thank you for your participation!*