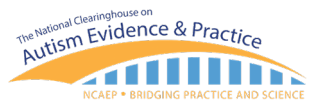




## **EBP BRIEF PACKET: NATURALISTIC INTERVENTION FOR TODDLERS IN CHILDCARE SETTINGS**

UNC Frank Porter Graham Child Development Institute  
Autism Focused Intervention Resources & Modules for Toddlers  
Nowell, S., Sam, A., Waters, V., Dees, R., Amsbary, J., & AFIRM for  
Toddlers Team, 2022



**FRANK PORTER GRAHAM  
CHILD DEVELOPMENT INSTITUTE**

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# NATURALISTIC INTERVENTION

## WHAT IS NI FOR TODDLERS?

**Naturalistic Intervention (NI)** is an evidence-based practice (EBP) consisting of a collection of techniques and strategies that are embedded in typical activities and/or routines in which the toddler participates to naturally promote, support, and encourage target skills/behaviors.

**Use novel materials and change things up in familiar routines and activities:** To set up the environment and to engage a learner if he/she does not seem interested in playing with you or seems to be bored during an activity<sup>5-7</sup>

**Respond to and comment on what the learner is saying/doing:** To help the learner engage with you while playing<sup>5-8</sup>

**Imitate what the learner is saying/doing:** To draw the learner's attention to you<sup>12</sup>

**Expand on what the learner is saying/doing:** To keep the learner engaged following the start of an activity<sup>5</sup>

**Give the learner choices:** To encourage learner engagement and communication<sup>8, 11</sup>

**Follow the learner's lead:** To help the learner remain engaged and interested in the activity<sup>7, 9-10</sup>

**Exaggerate your sounds and movements:** To draw the learner's attention to you<sup>5</sup>

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# EVIDENCE-BASE

The National Clearinghouse on Autism Evidence and Practice has adopted the following criteria to determine if a practice is evidence-based. The 2020 EBP report (Steinbrenner et al., 2020) provides more information about the systematic review process.

Efficacy must be established through high-quality, peer-reviewed research in scientific journals using:

- At least 2 randomized or quasi-experimental group design studies, or
- At least 5 single subject/case design studies, or a
- Combination of evidence of 1 randomized or quasi-experimental group design study and 3 single subject/case design studies

## OVERVIEW:

Based upon the 2020 systematic review conducted by the National Clearinghouse on Autism Evidence and Practice (NCAEP), Naturalistic Interventions for toddlers are focused interventions that meet the evidence-based practice criteria with over 25 single case design and 35 group design studies. These practices have been effective for early intervention (0-2 years) and preschoolers (3-5 years) on the spectrum. Studies included the 2020 EBP report (Steinbrenner et al., 2020) detail how naturalistic interventions for toddlers can be used to effectively address the following outcomes for a target goal/behavior/skill: academic/pre-academic, adaptive/self-help, challenging/interfering behavior, communication, joint attention, mental health, play, school readiness, and social.

In the table below, the instructional outcomes identified by the evidence base are shown by age of participants.

Age	Academic*	Adaptive	Behavior	Cognitive	Communication	Joint Attention	Mental Health	Motor	Play	School readiness	Social
0-2	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes
3-5	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

\*The NCAEP review classified practices into domains for an age range of 0-22. The focus of early intervention should be on pre-academic skills and the social and emotional well-being of children. AFIRM for Toddlers does not recommend working on academic goals/outcomes with children in early intervention.

**Note:** New studies since 2011 (2012 till 2017) are denoted in **bold**

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*Note:* New studies since 2011 (2012 until 2017) are denoted in bold



# IMPLEMENTATION CHECKLIST: FOR EI PROVIDER

		Observation:	1	2	3	4	5
		Date:					
		Observer's initials:					
<b>STEP 1: JOINT PLANNING FOR NATURALISTIC INTERVENTION</b>							
1.1	Select target skill/behavior for toddler with autism with caregiver						
1.2	Collect baseline on target skill/behavior with caregiver						
1.3	Discuss Naturalistic Intervention basics and using steps with caregiver						
1.4	Select activity that Naturalistic Intervention will be used with						
1.5	Plan other EBPs to use, if needed						
1.6	Have materials ready and available						
<b>STEP 2: COACHING USE OF NATURALISTIC INTERVENTION</b>							
2.1	Model using Naturalistic Intervention for the caregiver (Live and/or video):						
2.1a	Introduce the Caregiver Naturalistic Intervention Implementation Checklist to the caregiver						
2.1b	Model NI while the caregiver observes						
2.1c	Have the caregiver complete the Caregiver NI Implementation Checklist						
2.2	Answer caregiver's questions, if needed						
2.3	Support caregiver's use of Caregiver Naturalistic Intervention Implementation Checklist to practice using Naturalistic Intervention strategies						
2.4	Facilitate caregiver reflection and provide feedback following their practice use of Naturalistic Intervention						
2.5	Discuss with the caregiver how the reinforcer will be thinned (reduced) once the toddler is regularly accomplishing the target skill/behavior						
2.6	Discuss with the caregiver use of Naturalistic Intervention in daily routines and activities						
<b>STEP 3: MONITORING USE OF NATURALISTIC INTERVENTION</b>							
3.1	Plan for and support caregiver's data collection on the toddler's progress toward the target skill/behavior						
3.2	Monitor caregiver fidelity using the Caregiver Naturalistic Intervention Implementation Checklist						
3.3	Review data collected on the toddler's target skill/behavior						
3.4	Support use of Naturalistic Intervention for other skills/behaviors						
3.5	Collaborate with caregiver about next steps						

## IMPLEMENTATION CHECKLIST: FOR CAREGIVER

### JOINT PLANNING

---

- Discuss Naturalistic Intervention with your provider:
- View models (live and/or video) of Naturalistic Intervention
- Practice using Naturalistic Intervention with reflection, support, and feedback from your provider

### WHILE USING NATURALISTIC INTERVENTION

---

- Have materials ready and available
- Prepare the toddler for the activity to target the skill/behavior
- Transition into the activity
- Let the toddler know what is going to happen
- Engage the toddler in the activity
- Provide reinforcement when toddler attempts/completes skill/behavior (depending on your individualized plan)
- Record what happened by collecting data during use of Naturalistic Intervention to share with provider at next session

### CHECK-INS WITH YOUR PROVIDER

---

- Share what happened using Naturalistic Intervention (successes, challenges, concerns, etc.)
- Discuss and problem solve with your provider
- Determine next steps based on the toddler's progress

# SELECT A TARGET GOAL

Toddler's Name: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Observer(s): \_\_\_\_\_

Target Skill/Goal/Behavior: \_\_\_\_\_

**Directions:** Use this form to select a target behavior that is measurable and observable by addressing the when, what, and how in collaboration with the caregiver.

## DETERMINE GOAL:

1. In our service evaluation, you said your top concern(s) about the toddler was/is \_\_\_\_\_. Is that still true? What is your biggest goal or priority for the toddler right now?
2. Tell me more about the toddler. What is the toddler really good at doing? What are their favorite things to play with and what does that play look like? How does it go when you join in the toddler's play with their favorite things?
3. Tell me about the best interaction you had with the toddler recently. Where were you and what were you doing that made it go well?
4. I want to hear about times things do not go well between you and the toddler. Does this happen at a certain time of day or during particular activities? What do you and the toddler do when this happens?
5. When you really need the toddler to do something, how do you get them to do it? What are things that motivate the toddler?
6. In three months, what do you hope will have changed as a result of our early intervention sessions?

## CREATE A MEASURABLE AND OBSERVABLE GOAL:

---

1. **WHAT** is the target goal/behavior/skill?
  
2. **WHEN** and **WHERE** should the target goal/behavior/skill occur?
  
3. **HOW** will team members/observers know the target goal/behavior/skill has been mastered?

## GOAL:

---

# DATA COLLECTION: BASELINE

Toddler's Name: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Observer(s): \_\_\_\_\_

Target Skill/Goal/Behavior: \_\_\_\_\_

**Directions:** Use this sheet to collect baseline data on the toddler's and caregiver's behaviors on the target behavior/goal/skill across daily routines and settings.

Setting/ Routine	Caregiver Behavior	Toddler Behavior	Notes

# REINFORCER SAMPLING & CHECKLIST

Toddler's Name: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Observer(s): \_\_\_\_\_

Target Goal/Behavior/Skill: \_\_\_\_\_

**Directions:** Use this worksheet and checklist to identify and select reinforcers/rewards based on the toddler's preferred items, interests, and activities for **Positive Naturalistic Intervention** and **Token Economy**.

## CONDUCT A REINFORCER SAMPLING:

1. Sit in front of the toddler and hold up two items. Ask the toddler to "Pick one."
2. Wait 10 seconds for the toddler to indicate selection in manner that is appropriate for the toddler (e.g., verbalization, pointing, using an augmentative communication device).
3. Place the selected object in a container for toddler's selection and non-selected item in the not selected container.
4. Repeat steps 1 through 3 until half of the objects presented are selected.

Item 1	Selected?	Item 2	Selected?
	Yes No		Yes No
	Yes No		Yes No
	Yes No		Yes No
	Yes No		Yes No
	Yes No		Yes No
	Yes No		Yes No
	Yes No		Yes No

## LIST SELECTED REINFORCERS:

## LIST POTENTIAL REINFORCERS:

	AGE APPROPRIATE?	
	Yes	No
1. What natural reinforcers could be used?	Yes	No
2. What activities, objects, and/or foods does the toddler select independently?	Yes	No
3. What phrases or gestures seem to produce a pleasant response from the toddler?	Yes	No
4. What does the toddler say they would like to work for (if appropriate)?	Yes	No
5. What reinforcers were identified by parents/family members and/or team members as being successful in the past?	Yes	No
6. Does the toddler require additional adaptations/modifications/supports? Such as visual supports or a communication device?	Yes	No
7. Have reinforcers/rewards for the toddler been identified based on the toddler's interests/preferred items and/or activities?	Yes	No
8. Are additional materials and/or resources for using Functional Behavior Assessment ready and available?	Yes	No

## FOODS FOR SNACKS/MEALTIME ROUTINES:

- |  |                                    |                                   |
|--|------------------------------------|-----------------------------------|
| <input type="checkbox"/> Cheese          | <input type="checkbox"/> Fruit     | <input type="checkbox"/> Pretzels |
| <input type="checkbox"/> Chicken Nuggets | <input type="checkbox"/> Goldfish  | <input type="checkbox"/> Other:   |
| <input type="checkbox"/> Chips           | <input type="checkbox"/> Ice Cream | <input type="checkbox"/> Other:   |
| <input type="checkbox"/> French Fries    | <input type="checkbox"/> Pizza     | <input type="checkbox"/> Other:   |

## GAMES FOR PLAY/RECESS ROUTINES:

- |   |                                     |                                 |
|---|-------------------------------------|---------------------------------|
| <input type="checkbox"/> Burrito games with a blanket | <input type="checkbox"/> Peek-a-Boo | <input type="checkbox"/> Other: |
| <input type="checkbox"/> Chase                        | <input type="checkbox"/> Tickles    | <input type="checkbox"/> Other: |
| <input type="checkbox"/> Pat-a-Cake                   | <input type="checkbox"/> Other:     | <input type="checkbox"/> Other: |

## TOYS FOR PLAY/RECESS ROUTINES:

- |   |                                     |   |
|---|-------------------------------------|---|
| <input type="checkbox"/> Books              | <input type="checkbox"/> Legos      | <input type="checkbox"/> Remote controlled toys |
| <input type="checkbox"/> Cars/Trains/Trucks | <input type="checkbox"/> Noisy toys | <input type="checkbox"/> Other:                 |
| <input type="checkbox"/> Computer           | <input type="checkbox"/> Phones     | <input type="checkbox"/> Other:                 |
| <input type="checkbox"/> Doll house         | <input type="checkbox"/> Puzzles    | <input type="checkbox"/> Other:                 |

## SPECIAL INTERESTS FOR ACTIVITIES/ROUTINES:

- |   |   |                                      |
|---|---|--------------------------------------|
| <input type="checkbox"/> Book Character:      | <input type="checkbox"/> Movie Character:   | <input type="checkbox"/> TV Show:    |
| <input type="checkbox"/> Book:                | <input type="checkbox"/> Movie:             | <input type="checkbox"/> Video Game: |
| <input type="checkbox"/> Cars, Trains, Trucks | <input type="checkbox"/> Music              | <input type="checkbox"/> Other:      |
| <input type="checkbox"/> Computers/Technology | <input type="checkbox"/> Numbers            | <input type="checkbox"/> Other:      |
| <input type="checkbox"/> Dinosaurs            | <input type="checkbox"/> Real-Life Person:  | <input type="checkbox"/> Other:      |
| <input type="checkbox"/> Letters              | <input type="checkbox"/> TV Show Character: | <input type="checkbox"/> Other:      |



# CENTER-BASED ROUTINES/ACTIVITIES PLAN

Toddler's Name: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Observer(s): \_\_\_\_\_

Target Goal/Behavior/Skill: \_\_\_\_\_

**Directions:** Use this form as a guide support the caregiver using Naturalistic Intervention for Toddlers in center-based daily routines and activities.

Self-care	Enjoyment Level	Barriers/ Struggles	Transitions	Good fit for EBP?
Mealtime	☹️ 😐 😊		Into: NA rough so-so smooth Out: NA rough so-so smooth	<input type="checkbox"/> Yes <input type="checkbox"/> Maybe <input type="checkbox"/> No
Snack time	☹️ 😐 😊		Into: NA rough so-so smooth Out: NA rough so-so smooth	<input type="checkbox"/> Yes <input type="checkbox"/> Maybe <input type="checkbox"/> No
Diapering/ Potty	☹️ 😐 😊		Into: NA rough so-so smooth Out: NA rough so-so smooth	<input type="checkbox"/> Yes <input type="checkbox"/> Maybe <input type="checkbox"/> No
Handwashing	☹️ 😐 😊		Into: NA rough so-so smooth Out: NA rough so-so smooth	<input type="checkbox"/> Yes <input type="checkbox"/> Maybe <input type="checkbox"/> No
Napping	☹️ 😐 😊		Into: NA rough so-so smooth Out: NA rough so-so smooth	<input type="checkbox"/> Yes <input type="checkbox"/> Maybe <input type="checkbox"/> No
Other	☹️ 😐 😊		Into: NA rough so-so smooth Out: NA rough so-so smooth	<input type="checkbox"/> Yes <input type="checkbox"/> Maybe <input type="checkbox"/> No

Activities	Enjoyment Level	Barriers/ Struggles	Transitions	Good fit for EBP?
Group time	☹️ 😐 😊		Into: NA rough so-so smooth Out: NA rough so-so smooth	<input type="checkbox"/> Yes <input type="checkbox"/> Maybe <input type="checkbox"/> No
Story time	☹️ 😐 😊		Into: NA rough so-so smooth Out: NA rough so-so smooth	<input type="checkbox"/> Yes <input type="checkbox"/> Maybe <input type="checkbox"/> No
Free play	☹️ 😐 😊		Into: NA rough so-so smooth Out: NA rough so-so smooth	<input type="checkbox"/> Yes <input type="checkbox"/> Maybe <input type="checkbox"/> No
Center play	☹️ 😐 😊		Into: NA rough so-so smooth Out: NA rough so-so smooth	<input type="checkbox"/> Yes <input type="checkbox"/> Maybe <input type="checkbox"/> No
Outdoor play	☹️ 😐 😊		Into: NA rough so-so smooth Out: NA rough so-so smooth	<input type="checkbox"/> Yes <input type="checkbox"/> Maybe <input type="checkbox"/> No
Table time	☹️ 😐 😊		Into: NA rough so-so smooth Out: NA rough so-so smooth	<input type="checkbox"/> Yes <input type="checkbox"/> Maybe <input type="checkbox"/> No
Drop off/ Pickup	☹️ 😐 😊		Into: NA rough so-so smooth Out: NA rough so-so smooth	<input type="checkbox"/> Yes <input type="checkbox"/> Maybe <input type="checkbox"/> No
Other	☹️ 😐 😊		Into: NA rough so-so smooth Out: NA rough so-so smooth	<input type="checkbox"/> Yes <input type="checkbox"/> Maybe <input type="checkbox"/> No

# ADDITIONAL EBPs

**Toddler's Name:** \_\_\_\_\_ **Date/Time:** \_\_\_\_\_

**Observer(s):** \_\_\_\_\_

**Target Skill/Goal/Behavior:** \_\_\_\_\_

**Directions:** Identify additional evidence-based practices that can be used to address the target goal/behavior/skill.

## ANTECEDENT-BASED INTERVENTION (ABI):

Arrangement of events or circumstances that precede an activity or demand in order to increase the occurrence of a behavior or lead to the reduction of the challenging/interfering behaviors.

- AFIRM's Antecedent-Based Intervention (ABI) module

## MODELING (MD):

Involves the learner observing someone correctly performing a target behavior.

- AFIRM's Modeling module

## PROMPTING (PP):

Any verbal, gestural, or physical assistance given to learners to support them in acquiring or engaging in a targeted behavior or skill.

- AFIRM's Prompting module
- AFIRM for Paras: Prompting: Introduction & Practice module
- AFIRM for Toddlers: Prompting module

## REINFORCEMENT (R):

Provides feedback to the learner that increases the learner's use of a strategy or target behavior/skill in the future.

- AFIRM's Reinforcement module
- AFIRM for Paras: Reinforcement: Introduction & Practice module
- AFIRM for Toddlers: Reinforcement module

## VISUAL SUPPORTS (VS):

Any visual display that supports the learner engaging in a desired behavior or skills independent of additional prompts.

- AFIRM's Visual Supports module
- AFIRM for Paras: Visual Cues module
- AFIRM for Toddlers: Visual Supports

# NCEAP'S DOMAIN MATRIX (0-5 YEARS)

Toddler's Name: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Observer(s): \_\_\_\_\_

Target Skill/Goal/Behavior: \_\_\_\_\_

**Directions:** Use the domain matrix (Steinbrenner et al., 2020) to select an appropriate evidence-based practice to use with a learner. Definitions for the EBPs are located on the following pages.

	Academic		Adaptive		Behavior		Cognitive		Communication		Joint Attention		Mental Health		Motor		Play		School-Readiness		Social	
	0-2.9 years	3-5.9 years	0-2.9 years	3-5.9 years	0-2.9 years	3-5.9 years	0-2.9 years	3-5.9 years	0-2.9 years	3-5.9 years	0-2.9 years	3-5.9 years	0-2.9 years	3-5.9 years	0-2.9 years	3-5.9 years	0-2.9 years	3-5.9 years	0-2.9 years	3-5.9 years	0-2.9 years	3-5.9 years
ABI																						
AAC																						
ASI																						
BMI																						
DR																						
DI																						
DTT																						
EXM																						
EXT																						
FBA																						
FCT																						
MD																						
MMI																						
NI																						
PII																						
PBII																						
PP																						
R																						
RIR																						
SM																						
SN																						
SST																						
TA																						
TAII																						
TD																						
VM																						
VS																						

## EVIDENCE-BASED PRACTICES FOR EARLY INTERVENTION (0-2.9):

	ACADEMIC	ADAPTIVE	BEHAVIOR	COGNITIVE	COMMUNICATION	JOINT ATTENTION	MENTAL HEALTH	MOTOR	PLAY	SCHOOL-READINESS	SOCIAL
<b>Antecedent-Based Interventions (ABI)</b>		Yes	Yes		Yes				Yes		
<b>Augmentative &amp; Alternative Communication (AAC; includes PECS)</b>					Yes	Yes			Yes		Yes
<b>Differential Reinforcement (DR)</b>		Yes	Yes		Yes						
<b>Discrete Trial Training (DTT)</b>						Yes					Yes
<b>Extinction (EXT)</b>		Yes									
<b>Functional Behavior Assessment (FBA)</b>			Yes								
<b>Modeling (MD)</b>					Yes			Yes			Yes
<b>Music-Mediated Interventions (MMI)</b>		Yes			Yes						
<b>Naturalistic Interventions (NI; includes ImpACT, JASPER, Milieu, PRT)</b>	Yes	Yes	Yes		Yes	Yes	Yes		Yes	Yes	Yes
<b>Parent-Implemented Interventions (PII; includes Stepping Stones)</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Prompting (PP; includes prompt-based Scripting)</b>					Yes	Yes		Yes	Yes		Yes
<b>Reinforcement (R)</b>		Yes	Yes		Yes	Yes		Yes		Yes	Yes
<b>Social Skills Training (SST; includes PEERS)</b>					Yes				Yes		Yes
<b>Technology-Aided Instruction &amp; Intervention (TAII; includes MindReading, FaceSay)</b>		Yes		Yes	Yes			Yes			
<b>Time Delay (TD)</b>						Yes					Yes
<b>Video Modeling (VM)</b>					Yes	Yes			Yes		
<b>Visual Supports (VS; includes visual-based Scripting)</b>								Yes			

## EVIDENCE-BASED PRACTICES FOR PRESCHOOL (3-5.9):

	ACADEMIC	ADAPTIVE	BEHAVIOR	COGNITIVE	COMMUNICATION	JOINT ATTENTION	MENTAL HEALTH	MOTOR	PLAY	SCHOOL-READINESS	SOCIAL
<b>Antecedent-Based Interventions (ABI)</b>	Yes	Yes	Yes		Yes				Yes	Yes	Yes
<b>Augmentative &amp; Alternative Communication (AAC; includes PECS)</b>	Yes		Yes		Yes	Yes			Yes		Yes
<b>Ayres Sensory Integration (ASI)</b>		Yes	Yes		Yes				Yes	Yes	Yes
<b>Behavior Momentum Intervention (BMI)</b>	Yes	Yes	Yes		Yes			Yes	Yes	Yes	Yes
<b>Differential Reinforcement (DR)</b>	Yes				Yes						
<b>Direct Instruction (DI)</b>	Yes	Yes		Yes	Yes	Yes			Yes	Yes	Yes
<b>Discrete Trial Training (DTT)</b>	Yes		Yes	Yes	Yes			Yes	Yes	Yes	Yes
<b>Exercise &amp; Movement (EXM; includes ECE)</b>		Yes	Yes		Yes					Yes	Yes
<b>Extinction (EXT)</b>	Yes		Yes							Yes	
<b>Functional Behavior Assessment (FBA)</b>		Yes	Yes		Yes				Yes	Yes	Yes
<b>Functional Communication Training (FCT)</b>	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes
<b>Modeling (MD)</b>			Yes		Yes			Yes	Yes	Yes	Yes
<b>Music-Mediated Interventions (MMI)</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Naturalistic Intervention (NI; includes ImPACT, JASPER, Milieu, PRT)</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Parent-Implemented Intervention (PII; includes Stepping Stones)</b>					Yes	Yes			Yes	Yes	Yes
<b>Peer-Based Instruction &amp; Intervention (PBII; includes SPG, PMII)</b>	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes
<b>Prompting (PP; includes prompt-based Scripting)</b>	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes
<b>Reinforcement (R)</b>	Yes	Yes	Yes		Yes				Yes	Yes	Yes
<b>Response Interruption &amp; Redirection (RIR)</b>	Yes		Yes							Yes	Yes
<b>Self-Management (SM)</b>	Yes	Yes	Yes	Yes	Yes			Yes			Yes
<b>Social Narratives (SN; includes Social Stories)</b>	Yes	Yes	Yes		Yes	Yes			Yes		Yes
<b>Social Skills Training (SST; includes PEERS)</b>			Yes	Yes	Yes				Yes		Yes
<b>Task Analysis (TA)</b>		Yes			Yes	Yes					
<b>Technology-Aided Instruction &amp; Intervention (TAII; includes MindReading, FaceSay)</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Time Delay (TD)</b>	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes
<b>Video Modeling (VM)</b>	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes
<b>Visual Supports (VS; includes visual-based Scripting)</b>	Yes	Yes	Yes	Yes	Yes	Yes			Yes	Yes	Yes

## DEFINITIONS OF EVIDENCE-BASED PRACTICES:

1. **Antecedent-Based Interventions (ABI)** Arrangement of events or circumstances that precede an activity or demand in order to increase the occurrence of a behavior or lead to the reduction of the interfering behaviors.
2. **Augmentative & Alternative Communication (AAC)** Interventions using and/or teaching the use of a system of communication that is not verbal/vocal which can be aided (e.g., device, communication book) or unaided (e.g., sign language)
3. **Ayres Sensory Integration® (ASI®)** Interventions that target a person's ability to integrate sensory information (visual, auditory, tactile, proprioceptive, and vestibular) from their body and environment in order to respond using organized and adaptive behavior.
4. **Behavioral Momentum Intervention (BMI)** The organization of behavior expectations in a sequence in which low probability, or more difficult, responses are embedded in a series of high probability, or less effortful, responses to increase persistence and the occurrence of the low probability responses.
5. **Differential Reinforcement of Alternative, Incompatible, or Other Behavior (DR)** A systematic process that increases desirable behavior or the absence of an undesirable behavior by providing positive consequences for demonstration/non-demonstration of such behavior. These consequences may be provided when the learner is: a) engaging in a specific desired behavior other than the undesirable behavior (DRA), b) engaging in a behavior that is physically impossible to do while exhibiting the undesirable behavior (DRI), or c) not engaging in the undesirable behavior (DRO).
6. **Direct Instruction (DI)** A systematic approach to teaching using a sequenced instructional package with scripted protocols or lessons. It emphasizes teacher and student dialogue through choral and independent student responses and employs systematic and explicit error corrections to promote mastery and generalization.
7. **Discrete Trial Training (DTT)** Instructional approach with massed or repeated trials with each trial consisting of the teacher's instruction/presentation, the child's response, a carefully planned consequence, and a pause prior to presenting the next instruction.
8. **Exercise & Movement (EXM)** Interventions that use physical exertion, specific motor skills/ techniques, or mindful movement to target a variety of skills and behaviors.
9. **Extinction (EXT)** The removal of reinforcing consequences of a challenging behavior in order to reduce the future occurrence of that behavior.
10. **Functional Behavioral Assessment (FBA)** A systematic way of determining the underlying function or purpose of a behavior so that an effective intervention plan can be developed.
11. **Functional Communication Training (FCT)** A set of practices that replace an interfering behavior that has a communication function with more appropriate and effective communication behaviors or skills.
12. **Modeling (MD)** Demonstration of a desired target behavior that results in use of the behavior by the learner and that leads to the acquisition of the target behavior.
13. **Music-Mediated Intervention (MMI)** Intervention that incorporates songs, melodic intonation, and/or rhythm to support learning or performance of skills/behaviors. It includes music therapy, as well as other interventions that incorporate music to address target skills.
14. **Naturalistic Intervention (NI)** A collection of techniques and strategies that are embedded in typical activities and/or routines in which the learner participates to naturally promote, support, and encourage target skills/behaviors.

- 15. Parent-Implemented Intervention (PII)** Parent delivery of an intervention to their child that promotes their social communication or other skills or decreases their challenging behavior.
- 16. Peer-Based Instruction & Intervention (PBII)** Intervention in which peers directly promote autistic children's social interactions and/or other individual learning goals, or the teacher/ other adult organizes the social context (e.g., play groups, social network groups, recess) and when necessary provides support (e.g., prompts, reinforcement) to the autistic children and their peer to engage in social interactions.
- 17. Prompting (PP)** Verbal, gestural, or physical assistance given to learners to support them in acquiring or engaging in a targeted behavior or skill.
- 18. Reinforcement (R)** The application of a consequence following a learner's use of a response or skills that increases the likelihood that the learner will use the response/skills in the future.
- 19. Response Interruption & Redirection (RIR)** The introduction of a prompt, comment, or other distractors when an interfering behavior is occurring that is designed to divert the learner's attention away from the interfering behavior and results in its reduction.
- 20. Self-Management (SM)** Instruction focusing on learners discriminating between appropriate and inappropriate behaviors, accurately monitoring, and recording their own behaviors, and rewarding themselves for behaving appropriately.
- 21. Social Narratives (SN)** Interventions that describe social situations in order to highlight relevant features of a target behavior or skill and offer examples of appropriate responding.
- 22. Social Skills Training (SST)** Group or individual instruction designed to teach learners ways to participate in their interactions appropriately and successfully with others.
- 23. Task Analysis (TA)** A process in which an activity or behavior is divided into small, manageable steps in order to assess and teach the skill. Other practices, such as reinforcement, video modeling, or time delay, are often used to facilitate acquisition of the smaller steps.
- 24. Technology-Aided Instruction & Intervention (TAII)** Instruction or intervention in which technology is the central feature and the technology is specifically designed or employed to support the learning or performance of a behavior or skill for the learner.
- 25. Time Delay (TD)** A practice used to systematically fade the use of prompts during instructional activities by using a brief delay between the initial instruction and any additional instructions or prompts.
- 26. Video Modeling (VM)** A video-recorded demonstration of the targeted behavior or skill shown to the learner to assist learning in or engaging in a desired behavior or skill.
- 27. Visual Supports (VS)** A visual display that supports the learner engaging in a desired behavior or skills independent of additional prompts.

# PLANNING CHECKLIST

Toddler's Name: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Observer(s): \_\_\_\_\_

Target Skill/Goal/Behavior: \_\_\_\_\_

**Directions:** Complete this checklist to determine if this is an appropriate practice to use with the toddler on the spectrum as well as if NI for Toddlers is ready to be implemented.

## PLANNING:

---

- Has the target goal/behavior/skill been identified?
- Has baseline data and/or a functional behavior assessment been collected through direct observation of the toddler?
- Is the target goal/behavior/skill measurable and observable? Does it clearly state **what** the target goal/behavior/skill is, **when** it will occur, and **how** team members/observers will know it has been mastered?
- Is Naturalistic Intervention appropriate for the toddler's target goal/behavior/skill?
- Does the toddler have needed prerequisite skills/abilities?
- Does the toddler require additional adaptations/modifications/supports? Such as visual supports or a communication device?
- Have reinforcers/rewards for the toddler been identified based on the toddler's interests/preferred items and/or activities?
- Are additional materials and/or resources for using Naturalistic Intervention ready and available?

## ANECDOTAL NOTES:

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**SELECT NATURALISTIC INTERVENTION STRATEGY:**

---

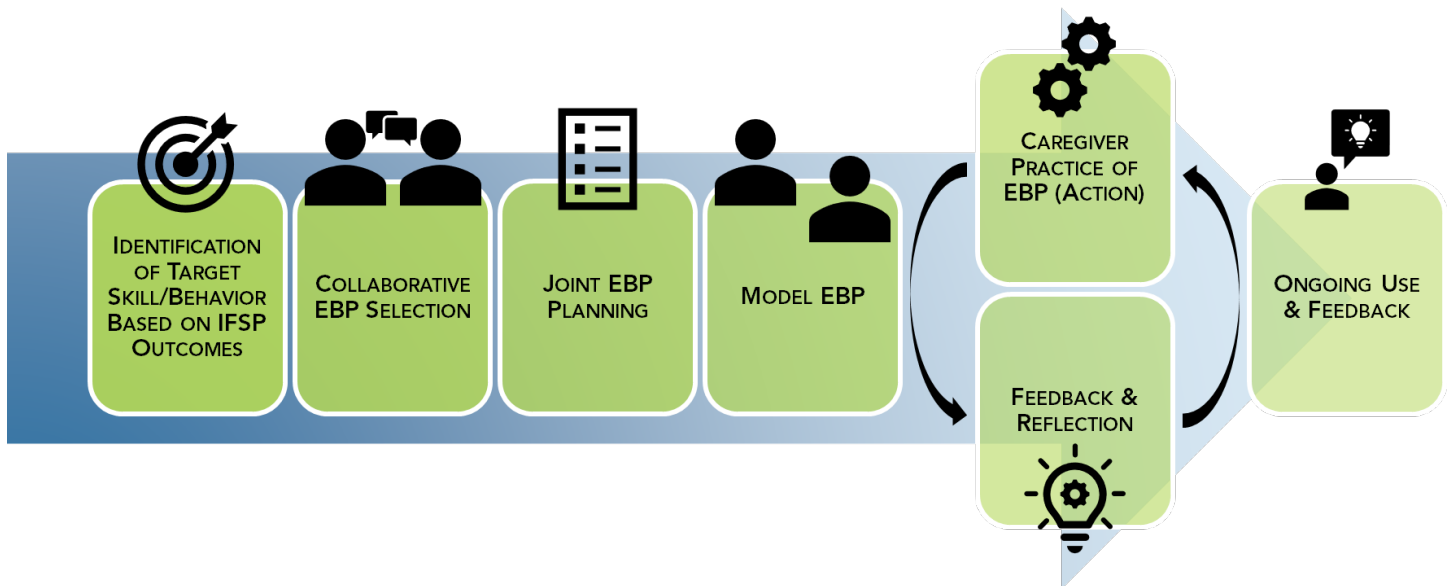
- Use novel materials and change things up in familiar routines and activities
- Respond to and comment on what the learner is saying/doing
- Imitate what the learner is saying/doing
- Expand on what the learner is saying/doing
- Give the learner choices
- Follow the learner's lead
- Exaggerate your sounds and movements

**SELECT ADDITIONAL EBPS:**

---

- Antecedent-Based Intervention
- Modeling
- Prompting
- Reinforcement
- Visual Supports
- Other:

# COACHING GUIDE



**MODEL:** Model use of Naturalistic Intervention for the caregiver. Have the caregiver note any questions or observations that they have as you model.

- Introduce the Caregiver Implementation Checklist to the caregiver.
- Model use of Naturalistic Intervention with the toddler while the caregiver observes you.
- Have the caregiver complete the Caregiver Implementation Checklist.

**CAREGIVER PRACTICE:** Coach the caregiver as they practice using Naturalistic Intervention, using the Caregiver Implementation Checklist as a guide. Video record them if they are comfortable.

**FEEDBACK AND REFLECTION:** Watch the video of the caregiver practicing Naturalistic Intervention with the caregiver. Ask the caregiver to reflect on their own use of Naturalistic Intervention and offer feedback for the next time they use it.

**REPEAT CYCLE:** Repeat the cycle of caregiver practice and reflection until the caregiver has mastered implementation of that EBP in that setting. Monitor the caregiver’s on-going use of Naturalistic Intervention while also monitoring the toddler’s progress toward the target skill/behavior.

**ON-GOING USE AND FEEDBACK:** Re-assess once the caregiver has mastered Naturalistic Intervention in one routine/activity and with one target skill, consider other routines and activities where Naturalistic Intervention could be used or other goals that may be targeted by that EBP. Discuss with the caregiver if they would like to target another goal and begin evidence-based practice selection and collaborative planning cycle again.

# FAQ GUIDE

## What is an evidence-based practice? What makes Naturalistic Intervention an evidence-based practice?

An evidence-based practice is an instructional/intervention procedure or set of procedures for which researchers have provided an acceptable level of research that shows the practice produces positive outcomes (NPDC, n.d.). Based upon the 2020 systematic review conducted by the National Clearinghouse on Autism Evidence and Practice (NCAEP), Naturalistic Interventions for toddlers are focused interventions that meets the evidence-based practice criteria (Steinbrenner et al., 2020).

## Why is Naturalistic Intervention important? Why should I use it with the toddler? What will it help the toddler with?

Naturalistic Intervention allows you to address goals that are relevant to toddlers in their daily routines and activities and to build successful interactions with the toddler. NI can turn routines from stressful to playful. NI strategies can be used to address a wide range of toddler goals.

## What steps are involved with using Naturalistic Intervention?

Using NI involves working together to select a target skill, discussing NI strategies, and selecting everyday routines in which to use the strategy. Then I will model NI for you, and you will have the chance to ask any questions. You will then have the chance to practice and reflect on your practice before using NI on your own.

## Are there any challenges to using Naturalistic Intervention for toddlers?

Consistency and practice are important when using NI. We will work together while you practice using the selected strategies and reflect on how you think things are going. We will also discuss how the strategies fit into your everyday routines with the toddler to be sure they can be used consistently

## How/When will I know it is working?

We will work together to monitor the use of NI strategies. We will plan for and collect data on the toddler's progress in a way that works best for you. Together we will look at the data to determine if the strategies are working for you and the toddler.

## Where can I learn more?

The Tip Sheet for Caregivers provides an overview of this practice for caregivers. The Caregiver NI Implementation Checklist outlines the steps of using NI in your setting. In addition, I will be supporting your use of NI and can answer any questions you have.

## Can I use this practice in other routines?

Yes, our goal is ultimately to use the practice in several routines as long as it is effective for you and the toddler. Since this is the first time we are using this practice, it is important that we focus on this one routine and get you and the toddler used to it before expanding to other routines.

**What if it does not go well?**

Interactions between caregivers and toddlers rarely go perfectly. It is important to keep practicing. If using the practice does not go well one day, try again the next day and things may be different. If the practice does not seem effective after a while, we can work together to select another practice.

**What if I do the steps wrong?**

It is completely ok to mess up some steps while you are learning the practice. You are a human and some days you will do this better than others. The important thing is to keep trying. I am here if you have any questions.

**What if I cannot remember all the steps?**

You may want to keep the steps next to you while using the practice the first few times you use it, either on paper or on your phone. What do you think would work best for you? It is ok and even expected that you will forget steps from time to time. Just keep trying.

# REFLECTION GUIDE

**Toddler's Name:** \_\_\_\_\_ **Date/Time:** \_\_\_\_\_

**Observer(s):** \_\_\_\_\_

**Target Skill/Goal/Behavior:** \_\_\_\_\_

**Directions:** Use this as a guide to facilitate the caregiver's reflection on their use of Naturalistic Intervention with their toddler.

## REFLECTION:

---

1. How do you think that went?
2. Did you encounter any challenges implementing Naturalistic Intervention with the toddler?
3. At which points did you see Naturalistic Intervention working for the toddler?
4. What could you have done differently?
5. Did you feel comfortable implementing Naturalistic Intervention with the toddler?
6. Did the toddler respond positively to Naturalistic Intervention?
7. Did the toddler enjoy the activity?

## END OF SESSION REFLECTION:

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1. How are you feeling about what we practiced today?
2. Does this target skill/behavior still feel important for us to work on?
3. Does the Naturalistic Intervention we selected feel like it could be helpful?
4. Does the routine we selected seem like a good fit for this practice?
5. How do you feel about doing this with the toddler this week without me here?
6. How do you think the toddler will respond to using this practice during the week?
7. Do you anticipate any issues with using this practice?
8. How do you think other caregivers will respond to learning about this practice?

# DATA COLLECTION: CAREGIVER LOG

Toddler's Name: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Observer(s): \_\_\_\_\_

Target Skill/Goal/Behavior: \_\_\_\_\_

**Directions:** Use this sheet to collect data on using Naturalistic Intervention with the toddler.

Date: _____ Setting/ Routine	Implementer	Additional EBPs Used?	Successful?
<input type="checkbox"/> Mealtime <input type="checkbox"/> Outing <input type="checkbox"/> Dressing <input type="checkbox"/> Sleep/Naptime <input type="checkbox"/> Playtime <input type="checkbox"/> Bath time <input type="checkbox"/> Toothbrushing <input type="checkbox"/> Handwashing <input type="checkbox"/> Storytime <input type="checkbox"/> Other	<input type="checkbox"/> Family <input type="checkbox"/> Parent <input type="checkbox"/> Child Care Provider <input type="checkbox"/> Other	<input type="checkbox"/> Prompting <input type="checkbox"/> Modeling <input type="checkbox"/> Visual Supports <input type="checkbox"/> Video Modeling <input type="checkbox"/> Other:	<input type="checkbox"/> Yes <input type="checkbox"/> No
What was happening before?	What happened while using EBP? Did toddler display target skill?	What happened after? Impact on target skill?	Results/Outcomes

Date: _____ Setting/ Routine	Implementer	Additional EBPs Used?	Successful?
<input type="checkbox"/> Mealtime <input type="checkbox"/> Outing <input type="checkbox"/> Dressing <input type="checkbox"/> Sleep/Naptime <input type="checkbox"/> Playtime <input type="checkbox"/> Bath time <input type="checkbox"/> Toothbrushing <input type="checkbox"/> Handwashing <input type="checkbox"/> Storytime <input type="checkbox"/> Other	<input type="checkbox"/> Family <input type="checkbox"/> Parent <input type="checkbox"/> Child Care Provider <input type="checkbox"/> Other	<input type="checkbox"/> Prompting <input type="checkbox"/> Modeling <input type="checkbox"/> Visual Supports <input type="checkbox"/> Video Modeling <input type="checkbox"/> Other:	<input type="checkbox"/> Yes <input type="checkbox"/> No
What was happening before?	What happened while using EBP? Did toddler display target skill?	What happened after? Impact on target skill?	Results/Outcomes

1. Overall impression to discuss with EI Provider (What is going well? What is difficult?):
2. Questions to ask EI Provider:



# DATA COLLECTION: TIME SAMPLING

Learner's Name: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Observer(s): \_\_\_\_\_

Target Skill/Goal/Behavior: \_\_\_\_\_

**Directions:** Collect data on the frequency of the learner demonstrating the target goal/behavior/skill at time intervals (light green cells) to determine if the learner is making progress.

Time Intervals (generally every 5 minutes)							
Date						Total	Before, During, OR After R

**ANECDOTAL NOTES:** \_\_\_\_\_

# DATA COLLECTION: EVENT SAMPLING

**Learner's Name:** \_\_\_\_\_ **Date/Time:** \_\_\_\_\_

**Observer(s):** \_\_\_\_\_

**Target Skill/Goal/Behavior:** \_\_\_\_\_

**Directions:** Collect data on the frequency of the toddler demonstrating a behavior that is interfering with their learning.

Date	Tally (each occurrence of the interfering behavior)	Total Tally

**ANECDOTAL NOTES:** \_\_\_\_\_

# DATA COLLECTION: DURATION

Learner's Name: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Observer(s): \_\_\_\_\_

Target Goal/Behavior/Skill: \_\_\_\_\_

**Directions:** Collect data on the duration of the learner demonstrating the target goal/behavior/skill to determine if the toddler is making progress.

Date	Start Time	Stop Time	Total Time (min)	Prompts Needed	Before, During, or After Naturalistic Intervention
					<input type="checkbox"/> Before <input type="checkbox"/> During <input type="checkbox"/> After
					<input type="checkbox"/> Before <input type="checkbox"/> During <input type="checkbox"/> After
					<input type="checkbox"/> Before <input type="checkbox"/> During <input type="checkbox"/> After
					<input type="checkbox"/> Before <input type="checkbox"/> During <input type="checkbox"/> After
					<input type="checkbox"/> Before <input type="checkbox"/> During <input type="checkbox"/> After
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					<input type="checkbox"/> Before <input type="checkbox"/> During <input type="checkbox"/> After
					<input type="checkbox"/> Before <input type="checkbox"/> During <input type="checkbox"/> After
					<input type="checkbox"/> Before <input type="checkbox"/> During <input type="checkbox"/> After

**Prompt Key:** VB = Verbal; VS = Visual; G = Gestural; M = Model; P = Physical; I = No prompts needed/Independent

# MONITORING PROGRESS CHECKLIST

Toddler's Name: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Observer(s): \_\_\_\_\_

Target Skill/Goal/Behavior: \_\_\_\_\_

**Directions:** Complete this checklist to determine if the toddler is making progress with using Naturalistic Intervention.

## MONITORING PROGRESS:

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- Has the toddler achieved the target goal/behavior/skill?
- Is the target goal/behavior/skill measurable and observable? Does it clearly state what the target goal/behavior/skill is, when it will occur, and how team members/observers will know it has been mastered?
- Is the target goal/behavior/skill too difficult/complex? Does it need to be broken down into smaller steps?
- Has enough time been devoted to using Naturalistic Intervention for Toddlers (frequency, intensity, and/or duration)?
- Has the caregiver implemented Naturalistic Intervention for Toddlers with fidelity?
- Does the toddler require additional adaptations/modifications/supports? Such as visual supports or a communication device?
- Are the selected reinforcers preferred items/activities for the toddler?
- Has monitoring data been collected?
- Has using Naturalistic Intervention been reflected on?

## ANECDOTAL NOTES:

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# GENERALIZATION PLAN

Toddler's Name: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Observer(s): \_\_\_\_\_

Target Skill/Goal/Behavior: \_\_\_\_\_

**Directions:** Use this form to plan for supporting generalization of the toddler's skills across settings.

Time	Activity	Setting	Notes

# STEP-BY-STEP GUIDE FOR EI PROVIDER

This step-by-step practice guide outlines how to plan for, coach use, and monitor Naturalistic Intervention for Toddlers so that you can be sure this selected evidence-based practice is likely to be used by the caregiver to address the target goal/behavior/skill of the toddler.



## STEP 1: JOINT PLANNING FOR NATURALISTIC INTERVENTION

The planning step details the initial steps and considerations involved to prepare the caregiver for using Naturalistic Intervention with a toddler.

- 📄 Use the EI Provider Implementation Checklist to coach caregivers to use Naturalistic Intervention.
- 📄 Give the Caregiver Naturalistic Intervention Implementation Checklist to caregivers for them to use to follow the steps of using Naturalistic Intervention with the toddler.

### 1. Select target skill/behavior for toddler with caregiver (e.g., family member, childcare provider)

- Invite the caregiver's expert input on the toddler's needs, culture, and priorities
- 📄 Use the Selecting a Target Goal form as a guide to select a target skill/behavior with the caregiver.

### 2. Collect baseline on target goal with caregiver

Observe the toddler in their natural environment interacting with the caregiver.

- 📄 Use the Data Collection: Baseline with the caregiver to collect data on the toddler.

### 3. Discuss Naturalistic Intervention basics and using steps with caregiver

Effective discussions about Naturalistic Intervention include both informing caregivers about how to use Naturalistic Intervention and also empowering them as the expert about the toddler.

- Review baseline data with the caregiver.
- Introduce the main principles of Naturalistic Intervention and discuss how using Naturalistic Intervention can be used to address the toddler's target skill/behavior.
- Ask the caregiver if they have any questions about using Naturalistic Intervention.
- End with a discussion of caregiver strengths and how those can enhance their use of Naturalistic Intervention to address the toddler's target skill/behavior.
- 📄 Use the Tip Sheet for Childcare Providers to provide basic information about the practice to professionals working with the toddler.
- 📄 Use the Coaching Guide when coaching the caregiver to use NI during daily routines with the toddler.

#### 4. Select activity that this Naturalistic Intervention will be used with

When discussing activities in which to use Naturalistic Intervention refer to the target skill/behavior discussion and the baseline data you collected with the caregiver. Consider the family or center schedule and caregivers' preferences for when to target the skill/behavior with Naturalistic Intervention.

- 📄 Use the Routines Determination: Center-Based when selecting activities/setting for using Naturalistic Intervention.

#### 6. Determine supports that may be needed for toddler to use target skill/behavior

Consider using other EBPs to support the toddler's skill/behavior within the chosen routine. Foundational EBPs that are commonly used with Naturalistic Intervention include:

- Modeling
- Prompting
- Reinforcement
- Visual Supports

📄 Use the Additional EBPs form to identify additional evidence-based practices to use.

📄 Use the Domain Matrix 0-5 to select an appropriate EBP to use with a toddler.

📄 Use the R+ Checklist & Sampling Form to select reinforcers/rewards based on the toddler's preferences.

#### 7. Have materials ready and available

Additional materials may include:

- Motivating reinforcers
- Natural reinforcers
- Data collection sheet
- Materials for other EBPs (if needed)

📄 Use the Planning Checklist to determine if ready to implement Naturalistic Intervention

## STEP 2: COACHING USE OF NATURALISTIC INTERVENTION

The coaching step details the using steps and considerations involved to prepare the caregiver for using Naturalistic Intervention for Toddlers with a toddler.

- 📄 Use the Coaching Guide when coaching the caregiver to use Naturalistic Intervention during daily routines with the toddler.

#### 1. Model using the evidence-based practice for the caregiver:

##### a. Introduce the Caregiver Naturalistic Intervention Implementation Checklist

Review the Caregiver Naturalistic Intervention Implementation Checklist with the caregiver, explaining the steps of using Naturalistic Intervention and how it will be used within the selected routines or activities.

- 📄 Provide this Naturalistic Intervention Implementation Checklist to the caregiver to support their use of Naturalistic Intervention

## b. Model NI while the caregiver observes

- Model using the EBP with the toddler and encourage the caregiver to observe you using the strategy.
- Talk through the steps while you model, pointing out what went well or did not go well.

### 2.1c Have the caregiver complete the Caregiver NI Implementation Checklist

- While you model using the EBP, have the caregiver check off items on the Caregiver Implementation Checklist as they observe.
- Highlight the toddler's responses and discuss the importance of consistency when using the EBP.

## 2. Answer caregiver's questions, if needed

Take a moment to allow the caregiver to ask you questions about using Naturalistic Intervention and respond accordingly.

- 📄 Use the FAQ Guide for Naturalistic Intervention to answer any questions the caregiver has about Naturalistic Intervention

## 3. Support caregiver's use of Caregiver Naturalistic Intervention Implementation Checklist to practice using Naturalistic Intervention for Toddlers

- Encourage the caregiver to use the Caregiver Naturalistic Intervention Implementation Checklist as a guide as they practice Naturalistic Intervention while you observe and support them to use it.
- Prompt and encourage the caregiver as needed.
- 📄 Provide this Caregiver Naturalistic Intervention Implementation Checklist to the caregiver to support their use of Naturalistic Intervention

## 4. Facilitate caregiver reflection and provide feedback following their practice use of Naturalistic Intervention for Toddlers

- Using the Caregiver Naturalistic Intervention Implementation Checklist, ask the caregiver to reflect on their use of Naturalistic Intervention with their toddler.
- Use caregiver responses to guide a discussion.
- Modify the plan for using Naturalistic Intervention based on caregiver feedback.
- 📄 Use the Facilitate Reflection on Naturalistic Intervention Use form to facilitate the caregiver's reflection on their use of Naturalistic Intervention.

## 5. Discuss with the caregiver when they will use Naturalistic Intervention for Toddlers in daily routines and activities

- Discuss times of day or routines/activities during which caregivers will use Naturalistic Intervention with their toddler.
- Start small with one routine and gradually add to this.
- Praise small successes of the caregiver
- 📄 Provide this Caregiver Log & Data Collection Form to the caregiver to support their collection of monitoring data on the toddler.



## STEP 3: MONITORING USE OF NATURALISTIC INTERVENTION

The monitoring use step details how to monitor the caregiver's use of Naturalistic Intervention for Toddlers with a toddler and how to determine next steps based on the data.


### 1. Plan for and support caregiver's data collection on toddler's progress towards the target skill/behavior

- Ask the caregiver to track their toddler's progress using the Data Collection Form and Caregiver Log.
- Continue to collect data both during sessions as you observe the caregiver and from the caregiver's data collected throughout the week.
- Analyze trends and monitor progress in collaboration with the caregiver.

 Provide this Caregiver Log & Data Collection Form to the caregiver to support their collection of monitoring data on the toddler.

### 2. Collect and analyze fidelity of caregiver's use of Naturalistic Intervention for Toddlers

- Encourage the caregiver to keep the Caregiver Naturalistic Intervention Implementation Checklist somewhere easy to reference throughout the week.
- Monitor caregiver fidelity during sessions using the Caregiver Naturalistic Intervention Implementation Checklist and discuss any questions the caregiver has.

 Use this Naturalistic Intervention Implementation Checklist to collect the caregiver's fidelity of using Naturalistic Intervention


### 3. Review data collected on the toddler's target skill/behavior

- Review data collected during sessions and by the caregiver during the week.
- You and the parent should periodically self-reflect on use of Naturalistic Intervention.

 Use this Monitoring Progress Checklist to guide the reflection discussion.

### 4. Support caregiver's use of Naturalistic Intervention for Toddlers for other target skills/behaviors for the toddler

Once the target skill/behavior has been mastered during one activity, consider ways to generalize the skill in other activities or routines and with other caregivers.

 Provide this Generalization Plan to caregiver to support use of Naturalistic Intervention with other target goals for their toddlers across settings.

## 5. Determine next steps

Collecting data will help caregivers decide about the effectiveness of using Naturalistic Intervention for Toddlers and whether the toddler is making progress. If a toddler is making progress based upon data collected, then the caregiver should continue to use the selected strategies.

If caregivers determine that the toddler is not making progress, consider the following:

- Is the target goal/behavior/skill well defined?
- Is the target goal/behavior/skill measurable and observable?
- Is the target goal/behavior/skill too difficult/complex? Does it need to be broken down into smaller steps?
- Has enough time been devoted to using Naturalistic Intervention for Toddlers (frequency, intensity, and/or duration)?
- Was Naturalistic Intervention for Toddlers implemented with fidelity?
- Does the toddler need additional supports?
- Are the selected reinforcers preferred items/activities for the toddler?

If these issues have been addressed and the toddler continues not to show progress, consider selecting a different evidence-based practice to use with the toddler.

# TIP SHEET FOR CHILD CARE PROVIDER

## NATURALISTIC INTERVENTION ...

- Naturalistic Intervention (NI) is a collection of techniques and strategies that promote, support, and encourage target skills/behaviors
- NI strategies are embedded into typical activities and/or routines in which the toddler regularly participates



## WHY USE WITH TODDLERS ON THE SPECTRUM?

- Naturalistic Intervention is a versatile practice that can be used to address a variety of outcomes.
- Naturalistic Intervention can increase the likelihood and occurrence of target skills/behaviors.
- Using Naturalistic Intervention within daily routines and activities allows for successful interactions between caregivers, toddlers, and peers.

**TIPS:**

- Use NI within everyday routines to naturally increase the intensity of the intervention,
- Everyday routines can include arrival and departure, circle time, center play and table time activities.
- Common strategies include giving choices, following the toddler's lead, and expanding on what the toddler is saying or doing.

## INSTRUCTIONAL OUTCOMES:

The evidence-base for Naturalistic Intervention supports its use to address the following outcomes, according to age range, in the table below:

Age	Academic*	Adaptive	Behavior	Cognitive	Communication	Joint Attention	Mental Health	Motor	Play	School readiness	Social
0-2	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes
3-5	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

\*The NCAEP review classified practices into domains for an age range of 0-22. The focus of early intervention should be on pre-academic skills and the social and emotional well-being of children. AFIRM for Toddlers does not recommend working on academic goals/outcomes with children in early intervention.

## STEPS FOR IMPLEMENTING:

### 1. JOINT PLANNING

- Discuss NI with the toddler's early intervention provider
- View models (live and/or video examples) of NI
- Practice using NI with reflection, support, and feedback from the provider



### 2. USE

- Have materials ready and available
- Prepare the toddler for the activity to target the skill/behavior
- Transition into the activity
- Let the toddler know what is going to happen
- Engage the toddler in the activity
- Provide reinforcement when toddler attempts/completes the skill/behavior
- Record what happened during each use of NI to share with provider at next session

### 3. CHECK IN WITH YOUR EI PROVIDER

- Share what happened using NI (successes, challenges, concerns, etc.)
- Discuss and problem solve NI with the provider
- Determine next steps based on toddler's progress

### Naturalistic Intervention NI for Toddlers

This sheet was designed as a supplemental resource to provide basic information about Naturalistic Intervention for EI Providers working with toddlers on the spectrum.

For more information about this selected evidence-based practice, please visit <https://afirm.fpg.unc.edu/>.

# CEC STANDARDS

## INITIAL PRACTICE-BASED STANDARDS FOR EARLY INTERVENTIONISTS/EARLY CHILDHOOD (0-5 YEARS; CEC, 2020)

### STANDARD 1: CHILD DEVELOPMENT & EARLY LEARNING

- 1.1 Demonstrate an understanding of the impact that different theories and philosophies of early learning and development have on assessment, curriculum, intervention, and instruction decisions.
- 1.4 Apply knowledge of biological and environmental factors that may support or constrain children's early development and learning as they plan and implement early intervention and instruction.

### STANDARD 3: COLLABORATION & TEAMING

- 3.1 Apply teaming models, skills, and processes, including appropriate uses of technology, when collaborating and communicating with families; professionals representing multiple disciplines, skills, expertise, and roles; and community partners and agencies.
- 3.2 Use a variety of collaborative strategies when working with other adults that are evidence-based, appropriate to the task, culturally and linguistically responsive, and take into consideration the environment and service delivery approach.
- 3.3 Partner with families and other professionals to develop individualized plans and support the various transitions that occur for the young child and their family throughout the birth through 8 age-span.

### STANDARD 4: ASSESSMENT PROCESSES

- 4.2 Develop and administer informal assessments and/or select and use valid, reliable formal assessments using evidence-based practices, including technology, in partnership with families and other professionals.
- 4.3 Analyze, interpret, document, and share assessment information using a strengths-based approach with families and other professionals.
- 4.4 In collaboration with families and other team members, use assessment data to determine eligibility, develop child and family-based outcomes/goals, plan for interventions and instruction, and monitor progress to determine efficacy of programming.

### STANDARD 5: APPLICATION OF CURRICULUM FRAMEWORKS IN THE PLANNING OF MEANINGFUL LEARNING EXPERIENCE

- 5.1 Collaborate with families and other professionals in identifying an evidence-based curriculum addressing developmental and content domains to design and facilitate meaningful and culturally responsive learning experiences that support the unique abilities and needs of all children and families.
- 5.2 Use knowledge of early childhood curriculum frameworks, developmental and academic content knowledge, and related pedagogy to plan and ensure equitable access to universally designed, developmentally appropriate, and challenging learning experiences in natural and inclusive environments.

**STANDARD 6: USING RESPONSIVE AND RECIPROCAL INTERACTIONS, INTERVENTIONS, & INSTRUCTION**

- 6.2 Engage in reciprocal partnerships with families and other professionals to facilitate responsive adult-child interactions, interventions, and instruction in support of child learning and development.
- 6.3 Engage in ongoing planning and use flexible and embedded instructional and environmental arrangements and appropriate materials to support the use of interactions, interventions, and instruction addressing developmental and academic content domains, which are adapted to meet the needs of each and every child and their family.
- 6.4 Promote young children's social and emotional competence and communication, and proactively plan and implement function-based interventions to prevent and address challenging behaviors.
- 6.5 Identify and create multiple opportunities for young children to develop and learn play skills and engage in meaningful play experiences independently and with others across contexts.
- 6.6 Use responsive interactions, interventions, and instruction with sufficient intensity and types of support across activities, routines, and environments to promote child learning and development and facilitate access, participation, and engagement in natural environments and inclusive settings.
- 6.7 Plan for, adapt, and improve approaches to interactions, interventions, and instruction based on multiple sources of data across a range of natural environments and inclusive settings.

**STANDARD 7: PROFESSIONAL & ETHICAL PRACTICE**

- 7.2 Engage in ongoing reflective practice and access evidence-based information to improve their own practices.
- 7.3 Exhibit leadership skills in advocating for improved outcomes for young children, families, and the profession, including the promotion of and use of evidence-based practices and decision-making.

# DEC RECOMMENDED PRACTICES

## ASSESSMENT:

- A2. Practitioners work as a team with the family and other professionals to gather assessment information.
- A3. Practitioners use assessment materials and strategies that are appropriate for the child's age and level of development and accommodate the child's sensory, physical, communication, cultural, linguistic, social, and emotional characteristics.
- A6. Practitioners use a variety of methods, including observation and interviews, to gather assessment information from multiple sources, including the child's family and other significant individuals in the child's life.
- A7. Practitioners obtain information about the child's skills in daily activities, routines, and environments such as home, center, and community.
- A9. Practitioners implement systematic ongoing assessment to identify learning targets, plan activities, and monitor the child's progress to revise instruction as needed.

## ENVIRONMENT:

- E1. Practitioners provide services and supports in natural and inclusive environments during daily routines and activities to promote the child's access to and participation in learning experiences.
- E3. Practitioners work with the family and other adults to modify and adapt the physical, social, and temporal environments to promote each child's access to and participation in learning experiences.

## RECOMMENDED PRACTICE: INTERACTION

- INT1. Practitioners promote the child's social-emotional development by observing, interpreting, and responding contingently to the range of the child's emotional expressions.
- INT2. Practitioners promote the child's social development by encouraging the child to initiate or sustain positive interactions with other children and adults during routines and activities through modeling, teaching, feedback, or other types of guided support.
- INT3. Practitioners promote the child's communication development by observing, interpreting, responding contingently, and providing natural consequences for the child's verbal and non-verbal communication and by using language to label and expand on the child's requests, needs, preferences, or interests.
- INT4. Practitioners promote the child's cognitive development by observing, interpreting, and responding intentionally to the child's exploration, play, and social activity by joining in and expanding on the child's focus, actions, and intent.
- INT5. Practitioners promote the child's problem-solving behavior by observing, interpreting, and scaffolding in response to the child's growing level of autonomy and self-regulation.

## RECOMMENDED PRACTICE: INSTRUCTION

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- INS1. Practitioners, with the family, identify each child's strengths, preferences, and interests to engage the child in active learning.
- INS2. Practitioners, with the family, identify skills to target for instruction that help a child become adaptive, competent, socially connected, and engaged and that promote learning in natural and inclusive environments.
- INS3. Practitioners gather and use data to inform decisions about individualized instruction.
- INS4. Practitioners plan for and provide the level of support, accommodations, and adaptations needed for the child to access, participate, and learn within and across activities and routines.
- INS5. Practitioners embed instruction within and across routines, activities, and environments to provide contextually relevant learning opportunities.
- INS6. Practitioners use systematic instructional strategies with fidelity to teach skills and to promote child engagement and learning.
- INS7. Practitioners use explicit feedback and consequences to increase child engagement, play, and skills.
- INS9. Practitioners use functional assessment and related prevention, promotion, and intervention strategies across environments to prevent and address challenging behavior.
- INS10. Practitioners implement the frequency, intensity, and duration of instruction needed to address the child's phase and pace of learning or the level of support needed by the family to achieve the child's outcomes or goals.
- INS13. Practitioners use coaching or consultation strategies with primary caregivers or other adults to facilitate positive adult-child interactions and instruction intentionally designed to promote child learning and development.

## RECOMMENDED PRACTICE: TEAMING & COLLABORATION

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- TC1. Practitioners representing multiple disciplines and families work together as a team to plan and implement supports and services to meet the unique needs of each child and family.
- TC3. Practitioners use communication and group facilitation strategies to enhance team functioning and interpersonal relationships with and among team members.



## GLOSSARY

**Baseline data** - information gathered from multiple sources to better understand the target behavior, before using an intervention or practice; data collected on current performance level prior to implementation of intervention

**Caregiver** - throughout these modules, “caregiver” is used to refer to any of the people who care for a toddler during daily routines, including parents, other family members, and center-based providers or teachers

**Duration data** - records how long a learner engages in a particular behavior or skill

**Fade** - to systematically reduce and eventually withdraw the use of stimulus such as a prompt, request, or reinforcer

**Fidelity** - how well and how often the implementation steps for an evidence-based practice are followed

**Generalization** - the ability to use learned skills in new and different environments

**Goal** - throughout these modules, “goal” is used to refer to child and family goals and outcomes as indicated on an IFSP

**Implementation checklist** - the specific steps needed to accurately follow an evidence-based practice

**Interfering behavior** - a behavior that interferes with the learner’s ability to learn

**Maintenance** - toddlers continued use of a targeted skill or behavior after the Naturalistic Intervention EBP has been withdrawn

**Modeling (MD)** - an evidence-based practice that involves the learner observing someone correctly performing a target behavior

**Naturalistic Intervention (NI)** - an evidence-based practice that integrates the principles of applied behavior analysis (ABA) into the natural environment or into a learner’s everyday routines and activities

**Prompting (PP)** - an evidence-based practice in which the caregiver provides specific directions or arrangements of the context before the skill/behavior occurs to promote the toddlers use of the skill/behavior; prompts can be verbal, gestural, or physical

**Prompting hierarchy** - the continuum of prompting used to support a learner in acquiring new skills

**Provider** - throughout these modules, “provider” is used to refer to any early intervention provider including community-based rehabilitation service providers, early interventionists, developmental therapists, early intervention specialists, speech-language pathologists, occupational therapists, and physical therapists, among others

**Reinforcement (R)** - an evidence-based practice that provides feedback that increases the use of a strategy or target behavior/skill

**Reinforcer** - a motivating item/activity/food that serves to reinforce a toddler for displaying a target skill/behavior immediately after displaying the target skill/behavior

**Toddler** - throughout these models, “toddler” is used to refer to a child with autism, language disorder, developmental delay, or social communication needs below 36 months of age.

**Visual Supports (VS)** - an evidence-based practice that provides concrete cues that are paired with, or used in place of, a verbal cue to provide the learner with information about a routine, activity, behavioral expectation, or skill demonstration

## REFERENCES

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