Evidence Based Practice Training: Naturalistic Intervention (NI)

Adapted from Sam, A., & AFIRM Team. (2015). Naturalistic Intervention. Chapel Hill, NC: National Professional Development Center on Autism Spectrum Disorder, FPG Child Development Center, University of North Carolina. Retrieved from https://afirm.fpg.unc.edu/naturalistic-intervention





What is CAPTAIN

The California Autism Professional Training And Information Network (CAPTAIN) is an interagency network developed to support the understanding and use of evidence based practices (EBPs) for individuals with Autism across the state of California.





What is CAPTAIN

Marin County SELPA in partnership with CAPTAIN, are members of the Statewide System of Support as the Special Education Content Lead for Autism.

This project is funded by the California Department of Education and the California Collaborative for Educational Excellence.











Levels of Professional Development to Reach Implementation







Before We Begin...

Please complete the **Pre-Training Survey** sent to your email





What are Evidence Based Practices?



NCAEP definition of an EBP:

"Focused intervention practices that have evidence of efficacy in promoting positive outcomes for learners with ASD."

Steinbrenner, J. R., Hume, K., Odom, S. L., Morin, K. L., Nowell, S. W., Tomaszewski, B., Szendrey, S., McIntyre, N. S., Yücesoy-Özkan, S., & Savage, M. N. (2020). Evidence-based practices for children, youth, and young adults with Autism. The University of North Carolina at Chapel Hill, Frank Porter Graham Child Development Institute, National Clearinghouse on Autism Evidence and Practice Review Team.





Evidence Based Practice Matrix (28 EBPs)

Table 3.7 Matrix of evidence-based practices, outcomes, and age categories

Evidence-Based		ader	nic/ lemic	Ac Se	daptiv	ve/	In	alleng terfe ehav		С	ognit	ive		mmu			Joint			Ment healt		ı	Moto	or		Play			Schoo adine		dete	Self- ermina	ntion		Socia	ı	Voc	cation	ıal
Practices See Table 3.1 to link abbreviations to EBPs	0-5 years	6-14 years	15-22 years	0-5 years	6-14 years	15-22 years	0-5 years	6-14 years	15-22 years	0-5 years	6-14 years	15-22 years	0-5 years	6-14 years	15-22 years	0-5 years	6-14 years	15-22 years	0-5 years	6-14 years	15-22 years	0-5 years	6-14 years	15-22 years	0-5 years	6-14 years	15-22 years	0-5 years	6-14 years	15-22 years	0-5 years	6-14 years	15-22 years	0-5 years	6-14 years	15-22 years	0-5 years	6-14 years	15-22 years
ABI																																							
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VM																																							
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Selecting EBPs

Before beginning a new practice with a learner, it is important to follow four planning steps

- 1. Identify the behavior
- 2. Collect baseline data on the behavior
- 3. Establish an observable and measurable goal
- 4. Choose an EBP
 - Consider the child and family characteristics
 - Consider the teacher and team characteristics
 - Consider other available resources





Selecting an EBP Checklist

AFIRM Autism Focused Intervention Selecting an EBP Checklist For more information, please visit: https://afirm.fpg.unc.edu/	AFIRM Resources & Modules	Selecting an EBP Checklist For more information, please visit: https://afirm.fpg.unc.cdu/	AFIRM Autism Focused Intervention Resources & Modules	For mor	Selecting an EBP Ci e information, please visit: https://afirm.fpg.u
Salasting on ERD Chasklist	CHECK ANNUAL GOAL FOR:		SELECT AN EBP:		
Selecting an EBP Checklist AFIRM	Context (When/Antecedent)	☐ Yes ☐ No	SEEEGI AIV EDI .		
Learner's Name: Date/Time: Observer(s): Target Goal/Behavior/Skill (short):	Target goal/behavior/skill (What/Bei perform) Mastery (How/Criterion for learner				
Directions: Complete this checklist to select an appropriate practice to use with the learner with ASD.	IDENTIFY CHARACTERISTICS, CLUE	S, AND RESOURCES:			
	Child and Family Characteristics		IE APPLICABLE IDENTIE	Y ADDITIONALS EBPS TO	RE LISED WITH THE
IDENTIFY TARGET GOAL/BEHAVIOR/SKILL:	Student strengths:	Student challenges:	SELECTED EBP:	T ADDITIONALS EBES TO	DE OSED WITH THE
			☐ Reinforcement (R+)	☐ Prompting (PP)	☐ Modeling (MD)
	Has worked before (home/school):	Has not worked before (home/school):	☐ Task Analysis (TA)	☐ Time Delay (TD)	☐ Visual Supports (VS)
			☐ Functional Behavior		
COLLECT BASELINE DATA (OR USE SELECTING AN EBP DATA COLLECTION SHEET):	Teacher/Team Characteristics	To	Assessment (FBA)	L	
Date/Time Frequency/Duration Total	Knowledge level:	Successfully used EBPs:		•	•
Date/Time Frequency/Duration Total			ADDITIONAL NOTES:		
	Clues found in the IEP Goal				
	Goal domain:	Potential EBPs (Refer to the Domain Matrix):			
	Goal domain:	Potential EBPS (Refer to the Domain Matrix):			
	Other Resources				
	Current student supports:	Available equipment:			
DEFINE AN OBSERVABLE AND MEASURABLE IEP GOAL:					
	Team members:	Additional learning experiences:			
Selecting an EBP		Selecting an EBP			
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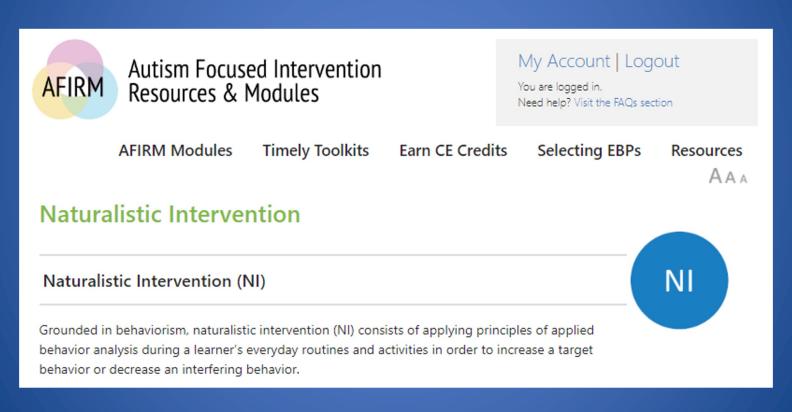




High Quality Training:

Autism Focused Intervention Resources and Modules (AFIRM)

Designed to help you learn the step-by-step process of planning for, using, and monitoring EBPs with learners with Autism from birth to 22 years of age







Core Components: Learning Objectives

- Define Naturalistic Intervention (NI)
- Plan to Use Naturalistic Intervention
- Provide strategies to support implementation of Naturalistic Intervention
- Provide suggestions to monitor the Naturalistic Interventions





Evidence (Age and Domains)

Early Intervention (0-2)	Preschool (3-5)	Elementary (6-11)	Middle (12-14)	High (15-22)
Social	Social	Social	No studies	No studies
Communication	Communication	Communication		
	Joint Attention			
	Behavior			
	Play			
Academic	Academic			





What is Naturalistic Intervention?

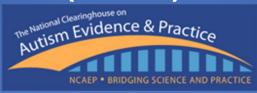
- NI is a broad category of Evidence Based Practices that is implemented in a learner's environment that support generalization of social skills and communication OR decrease a targeted behavior
- Includes use of Modeling, Prompting, Reinforcement
- Rather than a systematic trial-bytrial basis, NI can be implemented in a natural way into what a learner is already doing.







NI Also Includes MIMCs Manualized Intervention Meeting Criteria as an EBP (MIMC)



- A MIMC is operationally defined as interventions that a) are manualized, b)
 have unique features that create an intervention identity, and c) share
 common features with other practices grouped within the superordinate
 EBP classification
- The 2020 NCAEP report reclassified the following EBPs as MIMCs and included these into the Naturalistic Intervention EBP:
 - Pivotal Response Treatment (PRT) (Koegel & Koegel, 2006; Stahmer et al., 2011)
 - Joint Attention Symbolic Play and Emotion Regulation (JASPER) (Kasari et al., 2014)
 - Milieu Teaching (also includes Enhanced Milieu Teaching, Prelinguistic Milieu Teaching) (Kaiser & Roberts, 2013)





How to learn more these NI MIMCs

• PRT:

Review the AFIRM online training module: https://afirm.fpg.unc.edu/pivotal-response-training

 JASPER: https://www.jaspertraining.org/

The JOSPER Model for Children with Autism

Promoting Joint Attention, Symbolic Play, Engagement, and Regulation

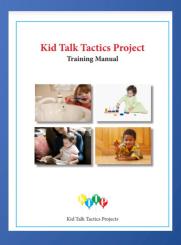
Connie Kasari, Amanda C. Gylsrud,

Stephanie Y. Shire, and Christina Strawbridge

Milieu Teaching:

<u>nttps://kidtalk.vkcsites.org/wp-</u> content/uploads/2013/10/KTTP-Manual.pdf









When/Where is NI implemented?

Everyday routines and activities in a learner's classroom may include:

- snack time,
- lunch time,
- circle time,
- recess,
- playtime,
- academics,
- or any activity in which the learner engages in his or her classroom on a regular basis.





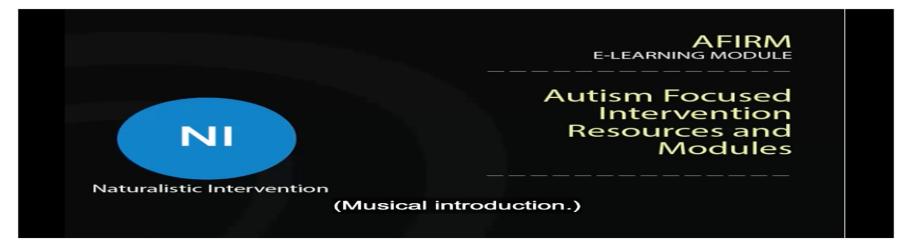


A Case of Naturalistic Interventions

A Case for NI

Naturalistic intervention (NI) originates from applied behavior analysis, which is the use of behavioral techniques to teach learners specific skills.

Module(s): Naturalistic Intervention







Why Use Naturalistic Interventions

- NI uses the learner's natural routine and environment to support the following goals:
 - increase target skills related to social skills and communication
 - increase spontaneous language and requesting
 - decrease interfering behaviors
 - generalize skills across environments
 - increase joint attention skills









Planning to Use NI

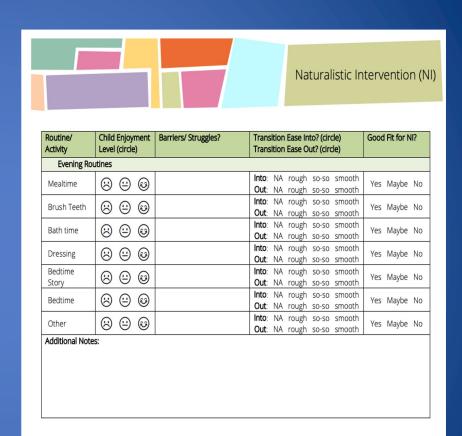
- Determine the skill to target
- Identify when and where the skill will be practiced
- Determine how data be collected
- Ensure that the team implementing the NI has the necessary resources and materials





Planning: Identify Routines

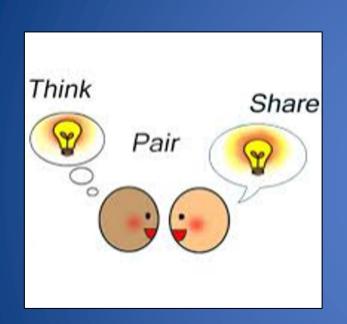








Think - Pair - Share



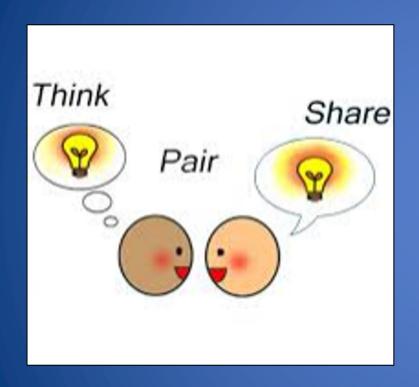
What are some classroom routines that are motivating or rewarding to your learner with Autism into which you could teach a skill?

For example, during snack you could incorporate math by teaching the student to request the number of grapes he wants.





Think - Pair - Share



Think about a home routine where NI could be implemented and share with a partner.





Planning: Determine Naturally Occurring Reinforcers

Consider the special interests of the student

Make sure to use positive statements of encouragement

Using a Reinforcement
Checklist may be helpful when
planning to implement







A Tip About Reinforcement in NI

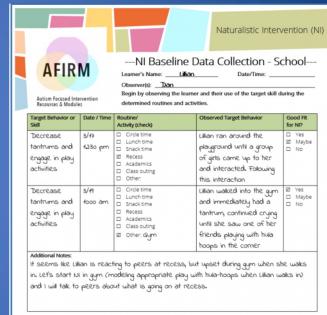
"Remember that the reinforcer may be anything that is part of, or can be made part of identified routines/activities, and is interesting and motivating to the learner."





Planning: Collect Baseline Data to Determine the Skills to Target

- Observe the learner in routines and activities where you are planning to implement NI
- Use data to help determine if the reinforcer is actually reinforcing or if it needs to be changed







Planning: Determine if other EBPs Need to be Used to Support

 Does the skill need to be modeled for the student in the activity/routine?

 Does the learner require prompting to support learning the skill?





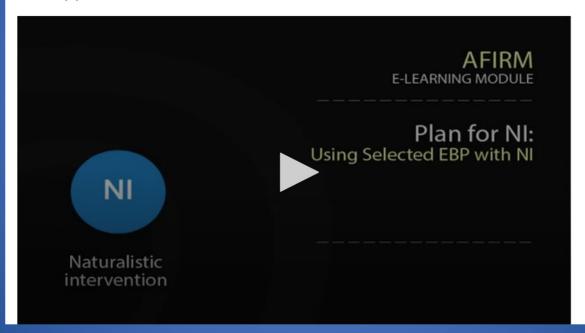


Plan NI: Select EBPs

Plan NI: Select Additional EBPs

Once the target behavior/skill and routine/activity in which to implement NI are determined, work together with the learner's family and/or IFSP/IEP team to determine which EBP to use and how mastery will be determined.

Module(s): Naturalistic Intervention







Planning Worksheet

Use the Planning Worksheet to organize a plan for implementation.

		NII Plant		shoot
AFII Autism Focused Resources & Mo	Observer(s) Target Beha	NI Plant lame: l: avior:	Date	/Time:
Selected	☐ Modeling		Other:	
EBP(s)	□ Prompting			
Routines and Activities to Try EBP(s)	☐ Lunch time ☐ (Class outing Dther:	Family Outing	☐ Playtime ☐ Bath time ☐ Other:
Staff and family members to be trained to implement NI	☐ Teacher Assistant	Service Other:	Parent	☐ Other Related Service ☐ Other:
Strategies to incorporate into NI	Using novel materials and Responding to and comm Imitating what the learner Expanding on what the le Giving the learner choice: Following the learner's lea Exaggerating your sound: Other:	nenting on what the r is doing/saying earner is saying/doin s ad	learner is saying/o	doing
Additional Notes				
		For more formation, visit:		





Develop the Implementation Plan



- Who will implement the plan?
- In what setting?
- How often?
- What reinforcers will be used?





NI Implementation Plan

Autism Focuser Resources & Mo	Ta d Intervention	rget Behavior:		
Selected EBP(s)	☐ Modeling ☐ Prompting		Other:	
Routines and Activities to Try EBP(s)	School: Circle time Lunch time Snack time Recess	☐ Academics ☐ Class outing ☐ Other:	Home: Mealtime Family Outing Dressing Bedtime	☐ Playtime ☐ Bath time ☐ Other:
Staff and family members to be trained to implement NI	School: Teacher Teacher Assistan OT SLP	☐ Other Related t Service ☐ Other:	Home: Parent Parent OT SLP	☐ Other Related Service ☐ Other:
Strategies to Incorporate Into NI	Responding to an Imitating what th Expanding on wh Giving the learne		at the learner is sayir ng g/doing	g/doing
Additional Notes				





Consider Using the Activity Matrix as an NI Planning Tool

CAPTAIN

USING AN ACTIVITY MATRIX TO INFUSE IEP GOALS THROUGHOUT THE DAY

CAPTAIN

- 1) List the student's goal areas along the top of the matrix
- 2) List the daily schedule of activities along the left side of the matrix, including all routines throughout the day (lunch, etc.)
- 3) In each corresponding cell write how the student will be taught/practice each skill during the daily activities and which EBP for Autism will be used

DAILY ACTIVITY:	Goal Area: Academics	Goal Area: Communication	Goal Area: Social Skills	Goal Area: Independence	Goal Area: Motor

Available on the CAPTAIN Website in Resources



EVIDENCE
Based Practices
—Autism—

Using NI

1. Arrange the environment

1. Engage the learner

1. Use selected EBPs and strategies





Arrange the Environment









Arrange the Environment

Set up the environment in which the chosen routine/activity is going to occur.

If preferred item(s) is incorporated into the routine/activity, be sure the preferred item is within sight.

Be sure that the environment has minimal distractions





Engage the Learner

Some signs that the learner is engaged include:

- The learner is looking at you
- The learner is smiling
- The learner notices if you leave the activity or change what you are doing
- The learner responds verbally or through another means to your comments and sounds





Use Selected EBPs

NI might include the integration of one or more EBP(s) into a learner's everyday routines and/or activities.

Two very commonly used EBPs in NI

Modeling (MD)

Demonstration of a desired target behavior that results in imitation of the behavior by the learner and that leads to the acquisition of the imitated behavior. This EBP is often combined with other strategies such as prompting and reinforcement. Modeling is a new EBP identified in 2014 review.



By using modeling (MD), the learner with ASD can acquire and generalize new skills/behaviors.

Prompting (PP)

Verbal, gestural, or physical assistance given to learners to assist them in acquiring or engaging in a targeted behavior or skill. Prompts are generally given by an adult or peer before or as a learner attempts to use a skill.

Prompting is an effective practice to increase success and generalizability of target skills or behaviors for learners with ASD.







Use Strategies When Implementing NI







Video Examples of NI Being Implemented







Monitoring. Conect Dasenne

Data Example

Naturalistic Intervention (NI)

AFIRM

Autism Focused Intervention Resources & Modules

---NI Baseline Data Collection - School---

Learner's Name: Lillian Date/Time: _____

Observer(s): Dan

Begin by observing the learner and their use of the target skill during the determined routines and activities.

Target Behavior or Skill	Date / Time	Routine/ Activity (check)	Observed Target Behavior	Good Fit for NI?
Decrease tantrums and engage in play activities	3/17 12:30 pm	☐ Circle time ☐ Lunch time ☐ Snack time ☑ Recess ☐ Academics ☐ Class outing ☐ Other:	Lillian ran around the playground until a group of girls came up to her and interacted. Following this interaction	☐ Yes ☑ Maybe ☐ No
Decrease tantrums and engage in play activities	3/19 10:00 am	☐ Circle time ☐ Lunch time ☐ Snack time ☐ Recess ☐ Academics ☐ Class outing ☑ Other: Gym	Lillian walked into the gym and immediately had a tantrum, continued crying until she saw one of her friends playing with hula hoops in the corner	☑ Yes □ Maybe □ No

Additional Notes:

It seems like Lillian is reacting to peers at recess, but upset during gym when she walks in. Let's start NI in gym (modeling appropriate play with hula-hoops when Lillian walks in) and I will talk to peers about what is going on at recess.

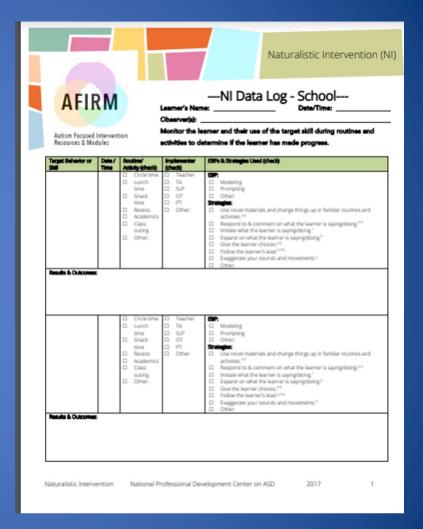


SELPA Content Lead EVIDENCE Based Practices —Autism—

Collect and Analyze Data on Target Behavior

Be sure to keep track of trials, outcomes, and factors affecting NI as you implement the intervention.

You might use the provided data collection tool or your own data collection method.







Practice with Feedback Get Started on a Planning Worksheet



Autism Focused Resources & Mo	Targ Intervention	erver(s): et Behavior:			
Selected EBP(s)	☐ Modeling ☐ Prompting		□ Other:		
Routines and Activities to Try EBP(s)	School: Circle time Lunch time Snack time Recess	☐ Academics ☐ Class outing ☐ Other:	Home: Mealtim Family C Dressin	Outing	
Staff and family members to be trained to implement NI	School: Teacher Teacher Assistant OT SLP	☐ Other Related Service ☐ Other:	Home: Parent Parent OT SLP	Other Service	
Strategles to Incorporate Into NI	☐ Using novel materi ☐ Responding to and ☐ Imitating what the ☐ ☐ Expanding on what ☐ Giving the learner of ☐ Following the learn ☐ Exaggerating your : ☐ Other:	commenting on wha learner is doing/sayin the learner is saying choices ier's lead	t the learner i g /doing	s saying/doing	
Additional Notes					





Naturalistic Intervention (NI)

---Implementation Checklist---

Before you start:

Have you...

- Identified the behavior?
- Collected baseline data through direct observation?
- Established a goal or outcome that clearly states when the behavior will occur, what the target skill is, and how the team will know when the skill is mastered.

If the answer to any of these is "no", refer to the "Selecting EBPs" section on the website.

Observation	1	2	3	4
Date				
Observer's Initials				
Step 1: Planning				
1.1 Identify routines and/or activities to target selected behavior				
1.2 Determine naturally occurring reinforcers during routines/activities				
1.3 Collect baseline data during identified routines and/or activities				
1.4 Select EBP(s)				
1.5 Develop implementation plan				
1.6 Train staff/providers/family members to implement NI				Г
Step 2: Using				
2.1 Arrange environment to elicit target behavior				
2.2 Engage the learner				
2.3 Use selected EBP(s) and planned strategies with the learner				
2.4 Provide naturally occurring reinforcement as appropriate				
Step 3: Monitoring				
3.1 Collect and analyze data on target behavior				Γ
3.2 Determine next steps based on learner's progress				

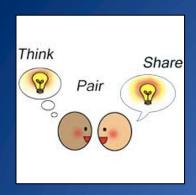
Assess and Implement

NI Implementation Checklist









My Takeaways

- 1. What are 4 things you remember from today's training?
- 1. What are 2 things you see yourself doing?
- 1. What is the 1 thing you can implement tomorrow?





After the Training...

Please complete the **Post Training Survey** that will be sent to your email



















www.captain.ca.gov captain@marinschools.org