

Autism Focused Intervention Resources & Modules

# EBP OVERVIEW & RESOURCE PACKET: SELECTING AN EVIDENCE-BASED PRACTICE

UNC Frank Porter Graham Child Development Institute

Autism Focused Intervention Resources & Modules

Sam, A., Waters, V., Dee, R., & AFIRM Team, 2022

**IDUNC** FRANK PORTER GRAHAM CHILD DEVELOPMENT INSTITUTE







# **Overview of Content**

- 1. **Table of Contents:** This list details the specific resources that apply to selecting an evidence-based practice.
- 2. **Overview:** A quick summary of the steps for selecting an evidence-based practice.
- 3. **EBP Selection Checklist:** This checklist details the steps for selecting an appropriate evidence-based practice to use with a learner.
- 4. **Planning Checklist:** This checklist details the steps for planning for selecting an evidencebased practice, including what prerequisite learning of practices are needed, collecting baseline data of the target goal/behavior/skill if needed, and what materials/resources are needed.
- 5. **Data Collection Form(s):** Use this form as a method for collecting and analyzing baseline data on the learner with autism's demonstration of the interfering behavior.
- 6. **Glossary:** This glossary contains key terms that apply specifically to selecting an evidencebased practice.
- 7. **Additional Resources:** A quick highlight of additional tools and resources to aid in the selection of an evidence-based practice to use with a learner.
- 8. **References:** This list details the specific references used for developing this selecting an evidence-based practice module.

### **Suggested Citation:**

Sam, A., Waters, V., Dees, R., & AFIRM Team. (2022). *Selecting an Evidence-Based Practice.* The University of North Carolina at Chapel Hill, Frank Porter Graham Child Development Institute, Autism Focused Intervention Modules and Resources. https://afirm.fpg.unc.edu/selecting-evidence-based-practice









# **Table of Contents**

Steps f	or Selecting an EBP	4
1-	Identify the target skill or interfering behavior:	4
2-	Establish an observable and measurable goal:	4
3-	Identify potential evidence-based practices:	4
4-	Choose an evidence-based practice:	4
5-	Train the team:	
EBP Se	lection Checklist	5
Functio	onal Behavior Assessment	6
Data C	ollection: Duration	8
Data C	ollection: Frequency	
Data C	ollection: Event Sampling	12
Data C	ollection: Duration (Bar)	14
Outcor	nes	15
Goal A	ttainment Scaling (GAS)	
	erations/Key Questions	
Domai	n Matrix	19
Evi	dence-based practices for Early Intervention (0-2.9):	20
Evi	dence-based practices for Preschool (3-5.9):	21
Evi	dence-based practices for Elementary school (6-11.9):	22
Evi	dence-based practices for Middle school (12-14.9):	23
Evi	dence-based practices for High school (15-18.9):	24
Evi	dence-based practices for Young Adult (19-22):	25
Def	finations of Evidence-Based Practices	26
Planni	ng Checklist	
	ry	
	onal Resources	
Refere	nces	







# Steps for Selecting an EBP

### 1- IDENTIFY THE TARGET SKILL OR INTERFERING BEHAVIOR:

The target behavior must be observable and clearly defined in the setting where it occurs. All team members should be able to identify the behavior (including its frequency and duration) based on the clarity of the definition of the behavior.

### 2- ESTABLISH AN OBSERVABLE AND MEASURABLE GOAL:

When the behavior has been clearly defined and is observable, members of the team will need to collect data to determine how often (frequency) and for how long (duration) the behavior occurs before beginning an intervention. This is called baseline data collection and is important for establishing a measurable IEP goal or IFSP outcome.

The team will then need to review the original IEP or IFSP goal or outcome. These outcomes need to be written in clear, measurable terms. If the goal or outcome was stated in broad terms, it will need smaller and more defined "steps" or objectives. These smaller steps or objectives will target a specific skill or behavior. Targeting a specific skill or behavior will help the team monitor progress toward achieving the broader IEP/IFSP goal or outcome.

### 3- IDENTIFY POTENTIAL EVIDENCE-BASED PRACTICES:

Once an observable and measurable goal or outcome is determined, the next step is to identify a list of potential EBPs by using NCAEP's Domain Matrix. Consider into what domain the outcome/goal can be categorized.

Look at the identified domain on the Domain Matrix for the child's age. All of the highlighted EBPs are appropriate to use based on research. To narrow the list down further, you will need to consider additional factors:

### 4- CHOOSE AN EVIDENCE-BASED PRACTICE:

Information obtained by considering key sources will provide clues that can inform your EBP selection. The NCAEP Age and Domain Matrix (Steinbrenner et al., 2020) can be used to identify those EBPs identified by the research literature for the age of the learner and the domain of instruction.

### 5- TRAIN THE TEAM:

Once an EBP or several EBPs have been selected as probable interventions, the team needs to identify who will implement the practice(s) with the learner. With time and success in the use of the intervention, others with whom the learner engages could be trained to use the intervention effectively so that consistency across settings is maximized.







# EBP Selection Checklist



| | | > > > >

### Learner's Name: \_\_\_\_\_ Observer(s): \_\_\_\_\_

Date, Int

### Target Goal/Behavior/Skill (short): \_\_\_\_\_

**Directions:** Complete this checklist for following steps for selecting an evidence-based practice to use with a learner.

SELECT	AN EVIDENCE-BASED PRACTICE:	
1.1	Identify a target skill or behavior based on IEP	
1.1	goal/outcome	
1.1a	If applicable, conduct a functional behavior assessment	
1.2	Establish an observable and measurable goal/outcome:	
1.2a	Collect baseline data	
1.2b	Determine context (the 'when' or the antecedent)	
1.2c	Determine the target goal/behavior/skill (the 'what' or the	
1.20	behavior)	
	Determine how the team will know when the learner	
1.2d	has mastered the target goal/behavior/skill (the 'how'	
	or the criterion)	
1.2e	If applicable, complete goal attainment scaling	
1.3	Identify potential EBPs based on research:	
1.3a	Identify domain outcome for the target goal/behavior/skill	
1.3b	Use the NCAEP Domain Matrix to list potential EBPs	
1.4	Choose an evidence-based practice based on completed 1.4a-	d:
1.4a	Determine learner and/or family's preferences, needs,	
1.4d	priorities, and/or other characteristics	
1.4b	Determine team and/or teacher characteristics	
1.4c	Look for additional clues in the target goal	
1.4d	Determine other resources	
1.5	Train the team to use the selected evidence-based	
1.5	practice	







# **Functional Behavior Assessment**

EBP



Learner's Name: \_\_\_\_\_ Observer(s): \_\_\_\_\_ Date/Time: \_\_\_\_\_

Target Goal/Behavior/Skill (short): \_\_\_\_\_

**Directions:** Complete this checklist to determine the function of an interfering behavior.

### DEFINE INTERFERING BEHAVIOR:

QUE	STIONS:		
1.	How long has the behavior been interfering with the learner's development and learning?		
2.	Does the behavior involve aggression or damage to property?	🗌 Yes	🗌 No
3.	Where is the behavior occurring?		
4.	What activities is the learner participating in when the behavior occurs?		
5.	What are others (teacher, peer, practitioner) doing when the behavior occurs?		
6.	What is the proximity of others (e.g., teacher, peer, practitioner) when the behavior occurs?		
7.	What is the noise level in the environment when the behavior occurs?		
8.	How many peers and adults are present when the behavior occurs?		
9.	What other environmental conditions (e.g., lighting) are present when the behavior occurs?		





QUE	STIONS:		
10.	Does the behavior occur because the learner is being asked to demonstrate a skill that he/she cannot perform (e.g., talking with peer, completing a difficult math assignment)?	☐ Yes	□ No
11.	Does the learner exhibit other behaviors immediately before the behavior occurs (antecedents)?	🗌 Yes	🗆 No
12.	What happens immediately after the interfering behavior occurs (consequences)?		

DETERMINE FUNCTION OF THE BEHAVIOR:					
To get or obtain:	To escape or avoid:				
□ Attention	□ Attention				
□ Food	Difficult task/activity				
🗆 Toys	Undesirable activity				
□ Hugs	Sensory stimulation				
Sensory Stimulation	Social stimulation				

DEVELOP HYPOTHESIS STATEMENT:					
Antecedents &	Interfering Behavior	Function of behavior			
Consequences					

### HYPOTHESIS STATEMENT:







# **Data Collection: Duration**

EBP



Learner's Name: \_\_\_\_\_ Observer(s): \_\_\_\_\_ Date/Time: \_\_\_\_\_

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

**Directions:** Collect data on the duration of the learner demonstrating the interfering behavior.

BASELIN	BASELINE DATA:								
Date	Setting/Activity	Start Time	Stop Time	Total Time (minutes)					

**ANECDOTAL NOTES:** 







Selecting an EBP Sam et al., 2022 Page 8 of 34



GRA	GRAPH BASELINE DATA:									

DETERMINE BASELINE DATA TREND:							
Does the graph of baseline data show a stable trend of	🗌 Yes	🗆 No					
the learner's interfering or challenging behavior?							
If no, continue to collect baseline data until a stable trend can be seen.							









# **Data Collection: Frequency**





Learner's Name: \_\_\_\_\_ Observer(s): \_\_\_\_\_ Date/Time: \_\_\_\_\_

Target Goal/Behavior/Skill:

**Directions:** Collect data on the frequency of the learner demonstrating the interfering behavior.

BASEL	INE DA	ATA:				
Date	Start Time	Stop Time	Total Time (min)	Tally	Total Tally	Prompts Needed

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

ANECDOTAL NOTES:







Selecting an EBP Sam et al., 2022 Page **10** of **34** 



GRA	GRAPH BASELINE DATA:									

DETERMINE BASELINE DATA TREND:							
Does the graph of baseline data show a stable trend of	🗌 Yes	🗆 No					
the learner's interfering or challenging behavior?							
If no, continue to collect baseline data until a stable trend can be seen.							









# **Data Collection: Event Sampling**





Learner's Name: \_\_\_\_\_ Observer(s):

Date/Time: \_\_\_\_\_

Interfering Behavior: \_\_\_\_\_

**Directions:** Collect data on the frequency of the learner demonstrating the interfering behavior.

EVEN	T SAMPLING:	
Date	Tally (each occurrence of the interfering behavior)	Total Tally

### **ANECDOTAL NOTES:**











GRA	APH I	BASEL	INE DA	TA:				

DETERMINE BASELINE DATA TREND:		
Does the graph of baseline data show a stable trend of	🗌 Yes	🗆 No
the learner's interfering or challenging behavior?		
If no, continue to collect baseline data until a stable trend	can be seen.	









# Data Collection: Duration (Bar)

EBP



Learner's Name: \_\_\_\_\_

Date/Time: \_\_\_\_

Observer(s): \_\_\_\_\_\_ Interfering Behavior: \_\_\_\_\_

**Directions:** This sheet could be completed by highlighting, circling, or shading the duration (length of the behavior). The sheet is designed to provide a graphic representation of the duration over time (the resulting data, if blocks are circled or highlighted, will appear similar to a bar graph).

Starting from the bottom, shade the number of boxes that represent the length of the interfering behavior. Each box represents ONE minute.

LENGTH OF IN	TERFERING BEH	AVIOR IN ONE I	MINUTE INCREM	IENTS:
Monday /	Tuesday /	Wednesday /	Thursday /	Friday /
15	15	15	15	15
14	14	14	14	14
13	13	13	13	13
12	12	12	12	12
11	11	11	11	11
10	10	10	10	10
9	9	9	9	9
8	8	8	8	8
7	7	7	7	7
6	6	6	6	6
5	5	5	5	5
4	4	4	4	4
3	3	3	3	3
2	2	2	2	2
1	1	1	1	1
0	0	0	0	0







## **Outcomes**

	Learner's Name: Date/Time:
:=	Observer(s):
:=	Interfering Behavior:
i — I	Directions: Use this sheet to identify goals and/or instructional outcomes for the learner with
	autism (Steinbrenner et al., 2020).

OUTCOME	DEFINITION	EXAMPLES (NOT AN EXHAUSTIVE LIST)
Academic/Pre- academic	related to performance on tasks typically taught and used in school settings	matching, sorting, classification, identification of shapes/colors/numbers/letters, sequencing, reading, writing, math, spelling, science, social studies
Adaptive	related to independent living skills and personal care skills	telephone, shopping, transportation, map skills, budgeting, cleaning, cooking, opening containers, eating, dressing, grooming, toileting, safety, health
Behavior	related to decreasing or eliminating behaviors that interfere with the individual's ability to learn, especially those that cause harm to self or others	destructive, self-injurious, aggressive, repetitive, maladaptive
Cognitive	related to performance on measures of intelligence, executive function, problem solving, information processing, reasoning, theory of mind, memory, creativity, or attention	test, achievement tests, early learning scales, Tower of London test, Sally Anne test, Test of Problem Solving
Communication	related to the ability to express wants, needs, choices, feelings, or ideas	language, speech, augmentative communication, sign language, manding, tacting, imitating, gestures and/or symbol use
Joint attention	related to behaviors needed for sharing interests and/or experiences	initiating and responding to eye gaze, coordinated joint looks, showing, pointing







Mental health	related to emotional well-being	self-esteem or self-efficacy, anxiety, stress, depression, co-occurring conditions, phobias, other psychiatric conditions
Motor	related to movement or motion, including both fine and gross motor skills, sensory system/sensory functioning	balance, gait, vestibular/proprioceptive functioning, handwriting, typing, use of tools, grip, exercise, participation in recreation
Play	related to the use of toys or leisure materials	symbolic/pretend/functional play, use of toys or leisure materials, development of play schemes, cooperative play with peers/adults, generalization of play behaviors, recess or playground skills, participation in games or play activities
Self- determination	related to self-directed actions in setting and achieving goals or making decisions and problem- solving	self-awareness, assertiveness, self- esteem, self-advocacy, problem- solving, evaluating choices, setting goals, motivation, decision-making, goal achievement
School readiness	related to performance during a task that is NOT directly related to task content	on task, task engagement, waiting, remaining seated, orienting to materials, self-regulation, and self- monitoring, responding to instruction
Social	related to skills needed to interact with others	initiating, facial expression recognition, emotion recognition, empathy, body language, responding to others, taking turns
Vocational	related to employment or employment preparation, self- advocacy, self-determination, and transition planning	changing oil, cake decorating, assembly, filing, relating to customers, problem-solving, time management, computer skills







# Goal Attainment Scaling (GAS)

EBP



### Learner's Name: \_\_\_\_\_ Observer(s): \_\_\_\_\_

Date/Time: \_\_\_\_\_

Target Goal/Behavior/Skill:

**Directions:** Establish performance criteria for each target skill or behavior to monitor progress. Goal Attainment Scaling (GAS) can be used to help establish these performance criteria as objectives.

GOAL ATTAINMENT SC	ALING:
Current Level of Performance Data gathered on: 	
Initial Objective	
Secondary Objective	
Expected Level of Outcome By when:	
Exceeds Outcome	









# **Considerations/Key Questions**

EBP

_
_
_

### Learner's Name: \_\_\_\_\_ Observer(s): \_\_\_\_\_

Date/Time: \_\_\_\_\_

Target Goal/Behavior/Skill:

**Directions:** Collect information child and family characteristics, teacher and/or team characteristics, clues found in the goal, and what other resources are available to inform your selection of an EBP.

LEARNER AND FAMILY PRIORITIES, PRI	EFERENCES, & CHARACTERISTICS
Learner strengths:	Learner challenges:
Has worked before home:	Has not worked before school:
Learner/Family's needs and/or priorities for tar	get goal:
Learner/Family's preferences for which EBP(s) t	o use:
TEACHER/TEAM CHARACTERISTICS	
Knowledge level:	Successfully used EBPs:
Past EBP trainings:	EBP trainings needed:
<b>CLUES FOUND IN THE TARGET GOAL/</b> 9	SKILL/BEHAVIOR:
Goal domain:	Potential EBPs (Refer to the Domain Matrix):
Additional EBPs mentioned in the goal:	
OTHER RESOURCES	
Current Learner supports:	Available equipment:
Team members:	Additional learning experiences:









# **Domain Matrix**

Date/Time: \_\_\_\_\_



### Observer(s): \_\_\_\_\_ Target Goal/Behavior/Skill: \_\_\_

Learner's Name: \_\_\_\_\_

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

1       1			_			
1       1		$\square$				
1       1				_		
Image: Constraint of the constraint						
1       1						
1       1						
Image: Series of the series						
Image: Series of the series						
Image: Series of the series						
Image: Series of the series						
Subscription     S						
Subscription     S						
Image: Constraint of the constraint						
1     1     1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1     1						
1     1     1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1     1						
Image: Constraint of the sector of the se						
0-2 years						
0-2 years						
Herein         Herein<						
O-2 years						
Image: Constraint of the constr						
Under the second s						
0-2 years						
J2-55 A69L2						
O-2 Aegr.2						
d la						
0-2 Years						
42-52 Åears						
D-2 Aegus						
۲						
Image: Comparison of the compar						
Evidence- Based Practices (EBP, 1990- 2017) 2017) 2 AAC 2 AAC 3 ASI 4 BMI 4 BMI 6 DR 6 DR 7 DI 6 CR 12 FCT 12 FCT 13 MD 14 MMI 13 MD 15 NI 15 NI 16 PII 17 PBII 17 PBII 16 PII 17 PBII 17 SM 18 PP 20 RIR	SST					







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

	ACADEMIC	ADAPTIVE	BEHAVIOR	COGNITIVE	COMMUNICATION	JOINT ATTENTION	MENTAL HEALTH	MOTOR	PLAY	SCHOOL-READINESS	SOCIAL
Antecedent-Based Interventions (ABI)		~	~		~				~		
Augmentative & Alternative					✓	✓			✓		✓
Communication (AAC; includes PECS)											
Differential Reinforcement (DR)		✓	✓		✓						
Discrete Trial Training (DTT)						✓					✓
Extinction (EXT)		✓									
Functional Behavior Assessment (FBA)			1								
Modeling (MD)					✓			✓			✓
Music-Mediated Interventions (MMI)		✓			✓						
Naturalistic Interventions (NI; includes ImPACT, JASPER, Milieu, PRT)	•	•	•		•	•	✓		•	✓	•
Parent-Implemented Interventions (PII; includes Stepping Stones)	1	•	~	1	1	1	1	1	1	~	•
Prompting (PP; includes prompt- based Scripting)					~	~		~	~		•
Reinforcement (R)		✓	✓		✓	✓		✓		~	$\checkmark$
Social Skills Training (SST; includes PEERS)					~				~		~
Technology-Aided Instruction &		~		~	~			~			
Intervention (TAII; includes MindReading, FaceSay)											
Time Delay (TD)						✓					$\checkmark$
Video Modeling (VM)					✓	✓			✓		
Visual Supports (VS; includes visual- based Scripting)								~			







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

					N	Z	<b>–</b>			VESS	
	ACADEMIC	ADAPTIVE	BEHAVIOR	COGNITIVE	COMMUNICATION	JOINT ATTENTION	MENTAL HEALTH	MOTOR	PLAY	SCHOOL-READINESS	SOCIAL
Antecedent-Based Interventions (ABI)	✓	✓	✓		✓				✓	✓	✓
Augmentative & Alternative Communication	✓		✓		✓	✓			✓		✓
(AAC; includes PECS)											
Ayres Sensory Integration (ASI)		✓	✓		✓				✓	✓	✓
Behavior Momentum Intervention (BMI)	✓	✓	✓		✓			✓	✓	✓	✓
Differential Reinforcement (DR)	✓				✓						
Direct Instruction (DI)	✓	✓		✓	✓	✓			✓	✓	✓
Discrete Trial Training (DTT)	✓		✓	✓	✓			✓	✓	✓	✓
Exercise & Movement (EXM; includes ECE)		✓	✓		✓					✓	✓
Extinction (EXT)	✓		✓							✓	
Functional Behavior Assessment (FBA)		✓	✓		✓				✓	✓	✓
Functional Communication Training (FCT)	✓	✓	✓		✓	✓		✓	✓	✓	✓
Modeling (MD)			✓		✓			✓	✓	✓	✓
Music-Mediated Interventions (MMI)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Naturalistic Interventions (NI; includes ImPACT, JASPER, Milieu, PRT)	~	~	~	~	~	~	•	~	~	~	~
Parent-Implemented Interventions (PII; includes Stepping Stones)					1	1			1	1	~
Peer-Based Instruction & Intervention (PBII; includes SPG, PMII)	~	1	1		~	1		1	1	~	~
Prompting (PP; includes prompt-based Scripting)	~	1	1		√	1		1	1	1	~
Reinforcement (R)	✓	✓	✓		✓				✓	✓	✓
Response Interruption & Redirection (RIR)	✓		✓							✓	✓
Self-Management (SM)	✓	✓	✓	✓	✓			✓			✓
Social Narratives (SN; includes Social Stories)	✓	✓	✓		✓	✓			✓		✓
Social Skills Training (SST; includes PEERS)			✓	✓	✓				✓		✓
Task Analysis (TA)		✓			✓	✓					
Technology-Aided Instruction & Intervention	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
(TAII; includes MindReading, FaceSay)											
Time Delay (TD)	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓
Video Modeling (VM)	✓	✓	✓		~	✓		✓	✓	✓	✓
Visual Supports (VS; includes visual-based Scripting)	1	1	1	1	~	1			1	1	~









### **EVIDENCE-BASED PRACTICES FOR ELEMENTARY SCHOOL (6-11.9):**

Antecedent-Based Interventions (ABI)	<ul> <li>ACADEMIC</li> </ul>	ADAPTIVE	▲ BEHAVIOR	COGNITIVE	COMMUNICATION	JOINT ATTENTION	▲ MENTAL HEALTH	MOTOR	< PLAY	SCHOOL-READINESS	SELF-DETERMINATION	social	VOCATIONAL
Augmentative & Alternative	✓		✓		✓	✓			✓			✓	
Communication (AAC; includes PECS)													
Ayres Sensory Integration (ASI)	✓	✓	✓		✓				✓	✓		✓	
Behavior Momentum Intervention (BMI)	✓	✓	✓	✓	✓		✓			✓	✓	~	
Cognitive Behavioral Instructional	1	1	✓		✓	1		✓	1	✓		1	
Strategies (CBIS; includes CBI)													
Differential Reinforcement (DR)	✓			✓	✓					✓			
Direct Instruction (DI)	✓	✓	✓	✓	✓	✓			✓			✓	✓
Discrete Trial Training (DTT)		✓	✓	✓	✓			✓		✓		~	
Exercise & Movement (EXM; includes ECE)		✓	✓		✓					✓		✓	
Extinction (EXT)	✓	✓	✓		✓					✓			
Functional Behavior Assessment (FBA)		✓	✓		✓				✓	✓		✓	
Functional Communication Training (FCT)	✓	✓	✓		✓				✓	✓		1	
Modeling (MD)			✓		✓			✓		✓		✓	
Music-Mediated Interventions (MMI)			✓	✓	✓	✓	✓	✓	✓	✓		✓	
Naturalistic Interventions (NI; includes ImPACT, JASPER, Milieu, PRT)		~	~		~		~		~	~		~	
Parent-Implemented Interventions (PII; includes Stepping Stones)	~		1	~	~	~	1		~	~		~	
Peer-Based Instruction & Intervention (PBII; includes SPG, PMII)	~	~	~		~	~		~	~	~		~	
Prompting (PP; includes prompt-based Scripting)	~	~	~	~	~	~		~	~	~		~	
Reinforcement (R)	✓	✓	✓		✓			✓	✓	✓		✓	
Response Interruption & Redirection (RIR)	✓		✓		✓				✓	✓	✓	✓	
Self-Management (SM)	✓	✓	✓	✓	✓			✓	✓	✓		✓	
Social Narratives (SN; includes Social Stories)	~	~	~		~	~			~	~		~	
Social Skills Training (SST; includes PEERS)		✓	✓	✓	✓	ļ	✓		✓	✓	✓	✓	
Task Analysis (TA)	✓	✓	✓		✓			✓	✓	✓		✓	
Technology-Aided Instruction & Intervention (TAII; includes MindReading, FaceSay)	1	1	1	1	1	√	1	1	1	1		1	
Time Delay (TD)	✓	✓	✓	✓	✓	✓			✓	✓		✓	✓
Video Modeling (VM)	✓	✓	✓	✓	✓	✓		✓	✓	✓		✓	✓
Visual Supports (VS; includes visual-based Scripting)	~	1	1	1	1	~		~	~	1		~	~









### **EVIDENCE-BASED PRACTICES FOR MIDDLE SCHOOL (12-14.9):**

	ACADEMIC	ADAPTIVE	BEHAVIOR	COGNITIVE	COMMUNICATION	JOINT ATTENTION	MENTAL HEALTH	моток	РLAY	<b>SCHOOL-READINESS</b>	SELF-DETERMINATION	SOCIAL	VOCATIONAL
Antecedent-Based Interventions (ABI)		✓	✓		✓		✓			✓		✓	
Augmentative & Alternative Communication (AAC; includes PECS)					1								
Ayres Sensory Integration (ASI)			1							✓			
Behavior Momentum Intervention (BMI)	~	1	~	1	1		~			1	~	~	
Cognitive Behavioral Instructional Strategies (CBIS; includes CBI)			~		~			~		~		~	
Differential Reinforcement (DR)				1	~					1			
Direct Instruction (DI)					~							1	
Discrete Trial Training (DTT)		1	~	~	~			1		✓		1	
Exercise & Movement (EXM; includes ECE)			✓		✓	✓				✓		✓	
Extinction (EXT)			1							✓			
Functional Behavior Assessment (FBA)			✓		✓								
Functional Communication Training (FCT)	1				1					1		1	
Modeling (MD)					1							1	
Music-Mediated Interventions (MMI)			1		<ul> <li>✓</li> </ul>				1			1	
Naturalistic Interventions (NI; includes ImPACT, JASPER, Milieu, PRT)		*	*		1		1					~	
Parent-Implemented Interventions (PII; includes Stepping Stones)	<b>*</b>			~	*		~		<b>*</b>	✓ 		~	
Peer-Based Instruction & Intervention (PBII; includes SPG, PMII)	<b>`</b>	×			×	~			~	×		×	1
Prompting (PP; includes prompt-based Scripting)	<b>`</b>	<b>`</b>	<b>*</b>		<b>`</b>					<b>~</b>		~	~
Reinforcement (R)			*		~								
Response Interruption & Redirection (RIR)		1	<b>*</b>						1	1	~	<b>√</b>	✓
Self-Management (SM)			<b>√</b>					~				1	
Social Narratives (SN; includes Social Stories)			✓		<ul> <li>✓</li> </ul>							×	
Social Skills Training (SST; includes PEERS)		✓	~	✓	~		~		1	1	~	1	
Task Analysis (TA)	✓				~	~			~				~
Technology-Aided Instruction & Intervention (TAII; includes MindReading, FaceSay)	×		~	*	*	~	~			*		×	
Time Delay (TD)	✓	~			~							~	~
Video Modeling (VM)	1	1	1		1				1	1		1	1
Visual Supports (VS; includes visual-based Scripting)	~	~	1		~				1	~		~	~









### **EVIDENCE-BASED PRACTICES FOR HIGH SCHOOL (15-18.9):**

	ACADEMIC	ADAPTIVE	BEHAVIOR	COGNITIVE	COMMUNICATION	JOINT ATTENTION	MENTAL HEALTH	MOTOR	PLAY	SCHOOL-READINESS	SOCIAL	VOCATIONAL
Antecedent-Based Interventions (ABI)	✓	✓	✓		✓		✓					
Augmentative & Alternative Communication					✓			✓			~	
(AAC; includes PECS)												
Behavior Momentum Intervention (BMI)		✓										
Cognitive Behavioral Instructional Strategies	✓	✓	✓		✓		✓			✓	✓	
(CBIS; includes CBI)												
Differential Reinforcement (DR)		✓	✓									
Direct Instruction (DI)					✓							
Discrete Trial Training (DTT)	✓				✓						~	
Exercise & Movement (EXM; includes ECE)		✓	✓	~	✓			✓		✓	~	
Extinction (EXT)		✓	✓		✓							
Functional Behavior Assessment (FBA)			✓		✓							
Functional Communication Training (FCT)		✓	✓		✓							
Modeling (MD)	✓				✓						~	
Naturalistic Interventions (NI; includes			✓						✓		✓	
ImPACT, JASPER, Milieu, PRT)												1
Parent-Implemented Interventions (PII;			✓		✓						~	
includes Stepping Stones)												
Peer-Based Instruction & Intervention (PBII;	✓				✓						~	
includes SPG, PMII)												
Prompting (PP; includes prompt-based	✓	✓	✓		✓				✓		✓	✓
Scripting)												
Reinforcement (R)	✓	✓	✓		✓	✓			✓	✓	✓	✓
Response Interruption & Redirection (RIR)			✓									
Self-Management (SM)		✓	✓							✓		
Social Narratives (SN; includes Social Stories)			✓		✓						✓	
Social Skills Training (SST; includes PEERS)		✓	✓		✓		✓		✓		✓	
Task Analysis (TA)												✓
<b>Technology-Aided Instruction &amp; Intervention</b>	✓			✓	✓	✓				✓	~	
(TAII; includes MindReading, FaceSay)												
Time Delay (TD)		✓								✓		✓
Video Modeling (VM)	✓	✓			✓				✓	✓	✓	✓
Visual Supports (VS; includes visual-based	~	✓									~	<ul> <li>✓</li> </ul>
Scripting)												







### **EVIDENCE-BASED PRACTICES FOR YOUNG ADULT (19-22):**

	ACADEMIC	ADAPTIVE	BEHAVIOR	COMMUNICATION	JOINT ATTENTION	MOTOR	PLAY	SCHOOL-READINESS	SOCIAL	VOCATIONAL
Antecedent-Based Interventions (ABI)			✓						✓	
Cognitive Behavioral Instructional Strategies (CBIS; includes CBI)	✓ ✓	~							~	
Differential Reinforcement (DR)			✓							
Discrete Trial Training (DTT)				✓					✓	
Functional Behavior Assessment (FBA)			✓							
Modeling (MD)				✓					✓	✓
Naturalistic Interventions (NI; includes ImPACT, JASPER, Milieu, PRT)			<b>√</b>				<b>√</b>		<b>√</b>	
Prompting (PP; includes prompt-based Scripting)	<b>√</b>		<b>√</b>	~				1		~
Reinforcement (R)		✓		✓	✓		✓		✓	✓
Response Interruption & Redirection (RIR)			~							
Self-Management (SM)								✓		$\checkmark$
Social Skills Training (SST; includes PEERS)									~	
Task Analysis (TA)										✓
Technology-Aided Instruction & Intervention (TAII; includes MindReading, FaceSay)	•	<b>√</b>		✓	~				~	
Time Delay (TD)	✓	✓		✓				✓		✓
Video Modeling (VM)	<ul> <li>✓</li> </ul>	✓				✓			✓	✓
Visual Supports (VS; includes visual- based Scripting)	•	<b>√</b>					1	1	1	~









### **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 challenging/interfering behaviors.

### 2. Augmentative and Alternative Communication (AAC):

Any form of idea or information sharing that is not verbal/vocal including aided and unaided communication systems and methods of teaching learners to use these systems.

### 3. Ayres Sensory Integration® (ASI):

An intervention, originated by A. Jean Ayres, which targets 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. ASI is implemented by trained occupational therapists (OTs).

### 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. Cognitive Behavioral/Instructional Strategies (CBIS)**: Instruction on management or control of cognitive processes that lead to changes in behavioral, social, or academic behavior.
- 6. Differential Reinforcement of Alternative, Incompatible, or Other Behavior (DR): Systematic differential reinforcement of a desirable over an undesirable behavior that reduces the occurrence of the undesirable behavior. Reinforcement provided: a) when the learner is engaging in a specific desired behavior other than the inappropriate behavior (DRA), b) when the learner is engaging in a behavior that is physically impossible to do while exhibiting the inappropriate behavior (DRI), or c) when the learner is not engaging in the interfering behavior (DRO).

### 7. Direct Instruction (DI):

An instructional package that utilizes scripted protocols or lessons that are designed to move Learners to mastery through systematic and explicit error corrections and scaffolding of choral and independent Learner responses.

### 8. 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.

### 9. Exercise and Movement (EXM):

Interventions that use physical exertion, specific motor skills/techniques, or mindful movement to target a variety of skills and behaviors.







### 10.Extinction (EXT):

A strategy based on applied behavior analysis that is used to reduce or eliminate a challenging behavior.

### 11. 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.

### 12. Functional Communication Training (FCT):

A systematic practice to replace inappropriate behavior or subtle communicative acts with more appropriate and effective communicative behaviors or skills.

### 13. 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.

### 14. Music-Mediated Intervention (MMI):

Intervention that incorporates songs, melodic intonation, and/or rhythm to support learning or performance of skills/behaviors. It includes interventions delivered by a trained music therapist, as well as other strategies that incorporate music to address target skills.

### 15. 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. The practices emerge from behavioral and/or developmental approaches to learning, including naturalistic developmental behavioral interventions (NDBIs).

### 16. 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.

### 17. Peer-Based Instruction and Intervention (PBII):

In PBII, 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 peers to engage in social interactions.

### 18. Prompting (PP):

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

### 19. 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.







### 20. 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.

### 21.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.

### 22. 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.

### 23. Social Skills Training (SST):

Social Skills Training (SST) is group or individual instruction designed to teach learners ways to participate in their interactions appropriately and successfully with others.

### 24. 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.

### 25. Technology-Aided Instruction and Intervention (TAII):

Instruction or interventions 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.

### 26. 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.

### 27.Video Modeling (VM):

A video-recorded model of the targeted behavior or skill shown to the learner to assist learning in or engaging in a desired behavior or skill.

### 28. Visual Supports (VS):

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









# Planning Checklist

Date/Time: \_\_\_\_\_

~	—
$\checkmark$	- 1
$\checkmark$	- 1
$\checkmark$	-

### Learner's Name: \_\_\_\_\_ Observer(s): \_\_\_\_\_

Target Goal/Behavior/Skill (short): \_\_\_\_\_

**Directions:** Complete this checklist to select an appropriate practice to use with the learner with autism.

**IDENTIFY TARGET GOAL/BEHAVIOR/SKILL:** 

# COLLECT BASELINE DATA (OR USE SELECTING AN EBP DATA COLLECTION SHEET): Date/Time Frequency/Duration Total Image: Image:

DEFINE AN OBSERVABLE AND MEASURABLE IEP GOAL:









CHE	CK ANNUAL GOAL FOR:		
1.	Context (When/Antecedent)	🗌 Yes	🗌 No
2.	Target goal/behavior/skill (What/Behavior the learner is to perform)	🗌 Yes	🗌 No
3.	Mastery (How/Criterion for learner progress/mastery)	🗌 Yes	🗌 No

LEARNER AND FAMILY PRIORITIES, PRI	EFERENCES, & CHARACTERISTICS:
Learner strengths:	Learner challenges:
Has worked before home:	Has not worked before school:
Learner/Family's needs and/or priorities for tar	get goal:
Learner/Family's preferences for which EBP(s) t	o use:
TEACHER/TEAM CHARACTERISTICS:	
Knowledge level:	Successfully used EBPs:
Past EBP trainings:	EBP trainings needed:
<b>CLUES FOUND IN THE TARGET GOAL/S</b>	KILL/BEHAVIOR:
Goal domain:	Potential EBPs (Refer to the Domain Matrix):
Additional EBPs mentioned:	
OTHER RESOURCES	
Current Learner supports:	Available equipment:
Team members:	Additional learning experiences:









### SELECT AN EBP:

# IF APPLICABLE, IDENTIFY ADDITIONAL EBPS TO BE USED WITH THE SELECTED EBP:

□ Reinforcement (R+)	Prompting (PP)	Modeling (MD)
🗌 Task Analysis (TA)	Time Delay (TD)	□ Visual Supports (VS)
Functional Behavior     Assessment (FBA)	□	□

GEN	GENERAL PLANNING:								
1.	Is this selected practice appropriate for the learner's target goal/behavior/skill?	🗌 Yes	🗆 No						
2.	Does the learner have needed prerequisite skills/abilities?	🗌 Yes	🗌 No						
3.	Does the learner require additional adaptations/ modifications/supports? Such as visual supports or a communication device?	🗌 Yes	🗆 No						
4.	Have reinforcers/rewards for the learner been identified based on the learner's interests/preferred items and/or activities?	🗌 Yes	🗆 No						
5.	Are additional materials and/or resources for using this selected practice ready and available?	□ Yes	🗆 No						

### **ANECDOTAL NOTES:**









# Glossary





Below are the key terms that apply specifically to this evidence-based practice.

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

### **Duration data:**

records how long a learner engages in a particular behavior or skill

### **Event sampling:**

collects frequency data at every instance the behavior occurs

### **Evidence-based practice:**

is an instructional/intervention procedure for which research has shown there are positive outcomes for learners

### **Fidelity:**

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

### **Functional Behavior Assessment (FBA):**

is an evidence-based practice used when the intensity, duration, or type of interfering behavior creates safety concerns or impacts a child's development

### Implementation checklist:

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

### Interfering behavior:

is a challenging behavior that interferes with the learner's ability to learn

### **Team members:**

includes the parents, other primary caregivers, IEP/IFSP team members, teachers, therapists, early intervention providers, and other professionals involved in providing services for the learner with autism







# Additional Resources

### **IEP to EBP Tool:**

The IEP to EBP Tool is designed to support your selection of an evidence-based practice for a learner with autism.

For more information, please visit: https://afirm.fpg.unc.edu/iep-to-ebp-tool

### **NCAEP EBP Database:**

The EBP database is designed to help you in the EBP selection process.

For more information, please visit: <u>https://ncaep.fpg.unc.edu/ebp-database</u>

### **AFIRM Modules:**

AFIRM Modules are designed to help you learn the step-by-step process of planning for, using, and monitoring an EBP with learners with ASD from birth to 22 years of age. Supplemental materials and handouts are available for download.

For more information, please visit: https://afirm.fpg.unc.edu/

### 2020 NCAEP EBP Report:

National Clearinghouse on Autism Evidence & Practice team at the Frank Porter Graham Child Development Institute has completed a report on Evidence Based Practices (EBPs). The report includes literature published from 2012-2017 and the findings are combined with the literature from the previous review (NPDC) from 1990-2011.

Steinbrenner, J. R., Hume, K., Odom, S. L., Morin, K. L., Nowell, S. W., Tomaszewski, B., Szendrey, S., McIntyre, N. S., Yucesoy-Ozkan, 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. <u>https://ncaep.fpg.unc.edu/research-resources</u>









# References



- NPDC Staff. (2017). *How do I find out more about EBPs?* Chapel Hill, NC: National Professional Development Center on Autism Spectrum Disorder, FPG Child Development Center, University of North Carolina. Retrieved from http://autismpdc.fpg.unc.edu/how-do-i-findout-more-about-ebps
- NPDC Staff. (2017). *The NPDC model: Outcomes*. Chapel Hill, NC: National Professional Development Center on Autism Spectrum Disorder, FPG Child Development Center, University of North Carolina. Retrieved from http://autismpdc.fpg.unc.edu/outcomes
- NPDC Staff. (2017). *What are evidence-based practices?* Chapel Hill, NC: National Professional Development Center on Autism Spectrum Disorder, FPG Child Development Center, University of North Carolina. Retrieved from http://autismpdc.fpg.unc.edu/evidencebased-practices
- Sam, A., & AFIRM Team. (2015). *Functional Behavior Assessment.* Chapel Hill, NC: National Professional Development Center on Autism Spectrum Disorder, FPG Child Development Center, University of North Carolina. Retrieved from http://afirm.fpg.unc.edu/functionalbehavior-assessment
- Steinbrenner, J. R., Hume, K., Odom, S. L., Morin, K. L., Nowell, S. W., Tomaszewski, B., Szendrey, S., McIntyre, N. S., Yucesoy-Ozkan, 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. https://ncaep.fpg.unc.edu/research-resources



