

## What is CAPTAIN?

**CAPTAIN is a multiagency network developed to support the understanding and use of Evidence-Based Practices for individuals affected by Autism Spectrum Disorder across California.**



[www.captain.ca.gov](http://www.captain.ca.gov)



# CAPTAIN Vision

Develop a Statewide Training and  
Technical Assistance Network  
with a focus on  
**Evidence-Based Practices**  
for individuals with **Autism**  
inclusive of stakeholder agencies who  
will disseminate information  
at the **Local Level**



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# CAPTAIN Goals

**Goal 1:** Increase knowledge about ASD and EBPs through systematic dissemination of information

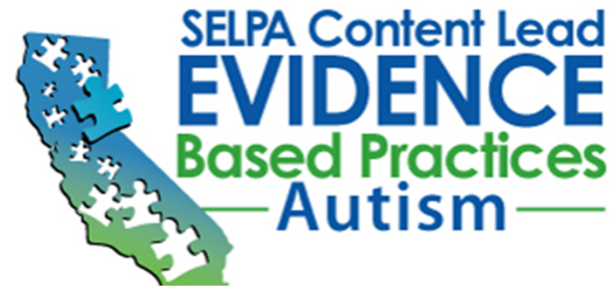
**Goal 2:** Increase implementation and fidelity of EBPs in schools and communities

**Goal 3:** Increase interagency collaborations to leverage resources and standardize a process for using EBPs



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MARIN COUNTY SELPA SELPA CONTENT LEAD - AUTISM CAPTAIN

# EVIDENCE-BASED PRACTICES

FOR STUDENTS WITH AUTISM AND OTHER DEVELOPMENTAL DISABILITIES

## IMPLEMENTATION

**Regional Implementation Lead**

- Builds Local Capacity
- Coordinates Regional Implementation Activities

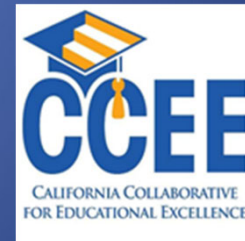
**Leadership**

- Supports Linkages Across Systems of Support
- Builds Collaborative Knowledge

**Coaching & Training**

- Builds Competence of Regional Leads and CAPTAIN Cadre Members
- Promotes Effective Implementation of Evidence-Based Practices

CAPTAIN is also a SELPA Content Lead-ASD in partnership with Marin County SELPA which is part of California's Statewide System of Support



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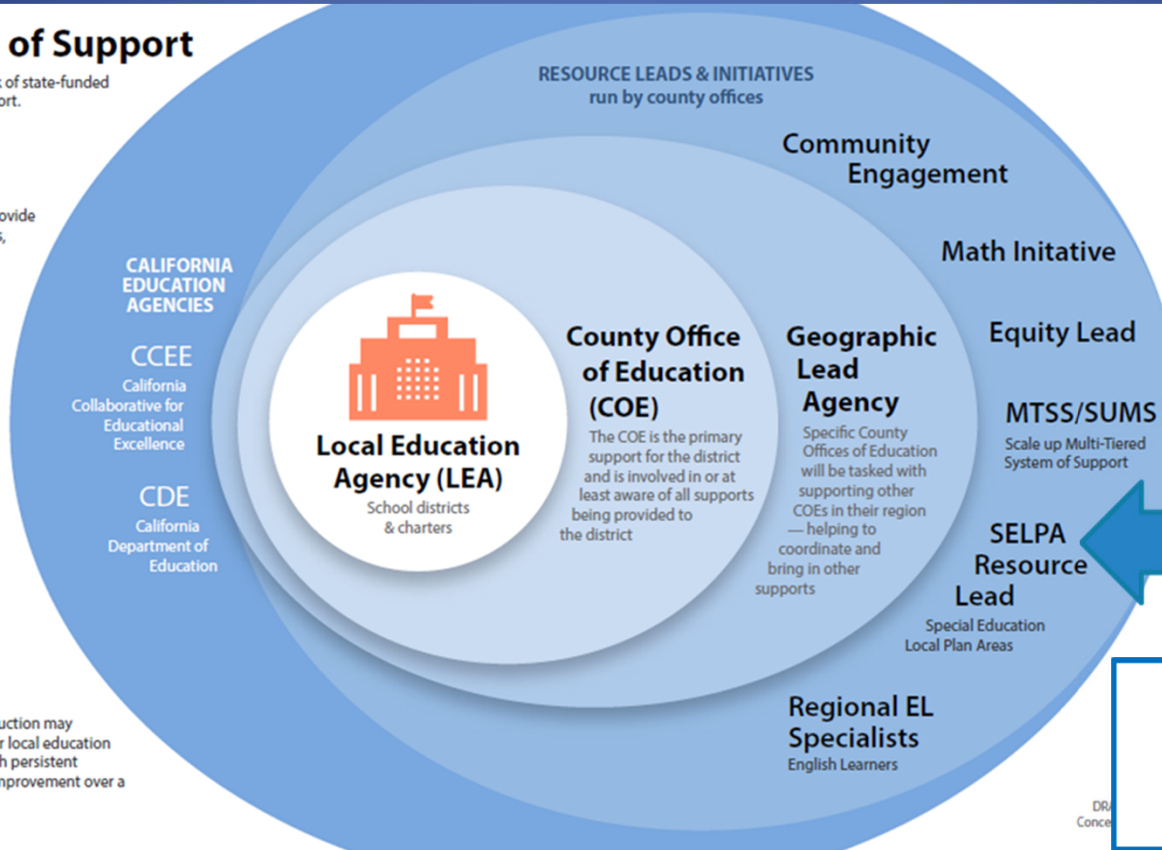


# CAPTAIN IS PART OF CALIFORNIA'S STATEWIDE SYSTEM OF SUPPORT

## California System of Support

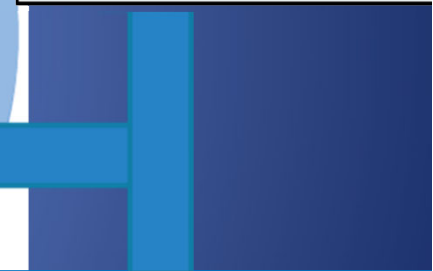
This graphic is intended to show the network of state-funded support providers under the System of Support.

- LEVEL 1**  
**SUPPORT FOR ALL**  
 Various state and local agencies provide an array of support resources, tools, and voluntary technical assistance that all LEAs may use to improve student performance at the LEA and school level and narrow gaps in performance among student groups across the LCFF priorities.
- LEVEL 2**  
**DIFFERENTIATED ASSISTANCE**  
 County Superintendents, the California Department of Education, and the California Collaborative for Educational Excellence provide differentiated assistance by working with school districts to address identified performance gaps among student groups.
- LEVEL 3**  
**INTENSIVE INTERVENTION**  
 The Superintendent of Public Instruction may require more intensive supports for local education agencies (LEAs) and/or schools with persistent performance issues and a lack of improvement over a specified time period.



**SELPA Content Leads**

- Marin County/CAPTAIN ASD** (indicated by a red arrow)
- Placer County:** Access AT/AAC/UDL
- South County:** Disproportionality
- Imperial County:** English Language Learners



**SELPA SYSTEMS IMPROVEMENT LEADS:**

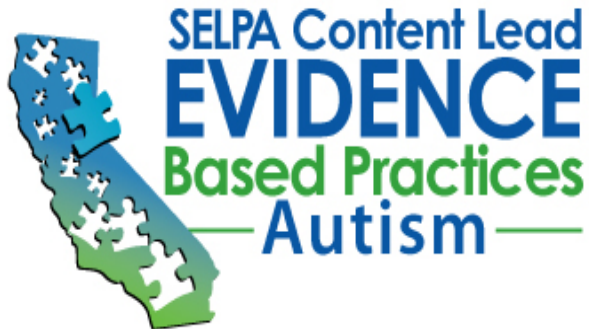
- El Dorado County
- West San Gabriel
- Riverside County



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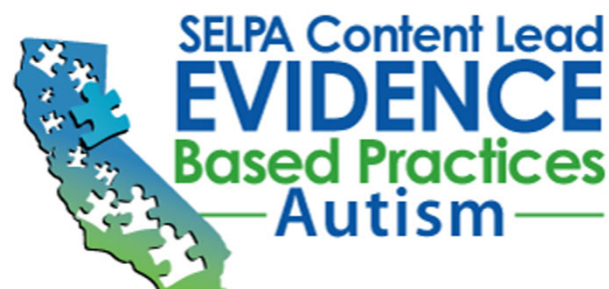


# CAPTAIN Partners Across California



Regional Centers

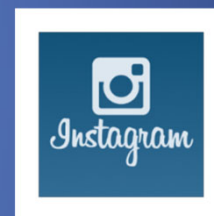




CAPTAIN



@CAPTAIN\_EBPS

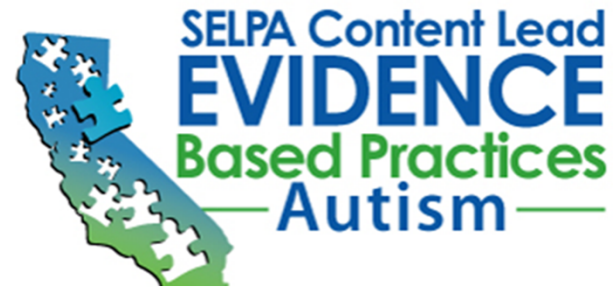


CAPTAIN\_EBPS

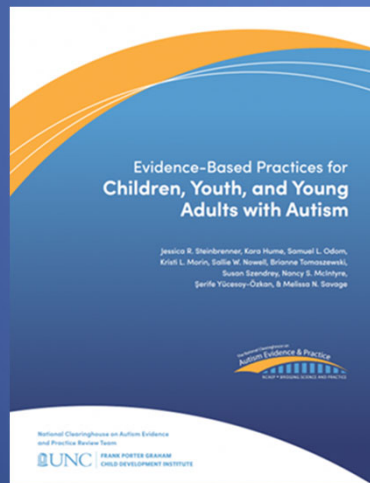


CAPTAIN

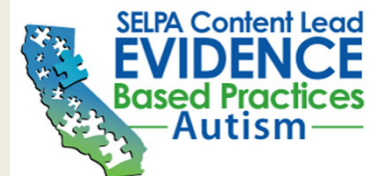
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[captain@marinschools.org](mailto:captain@marinschools.org)



# What are Evidence-Based Practices (EBPs) for ASD?

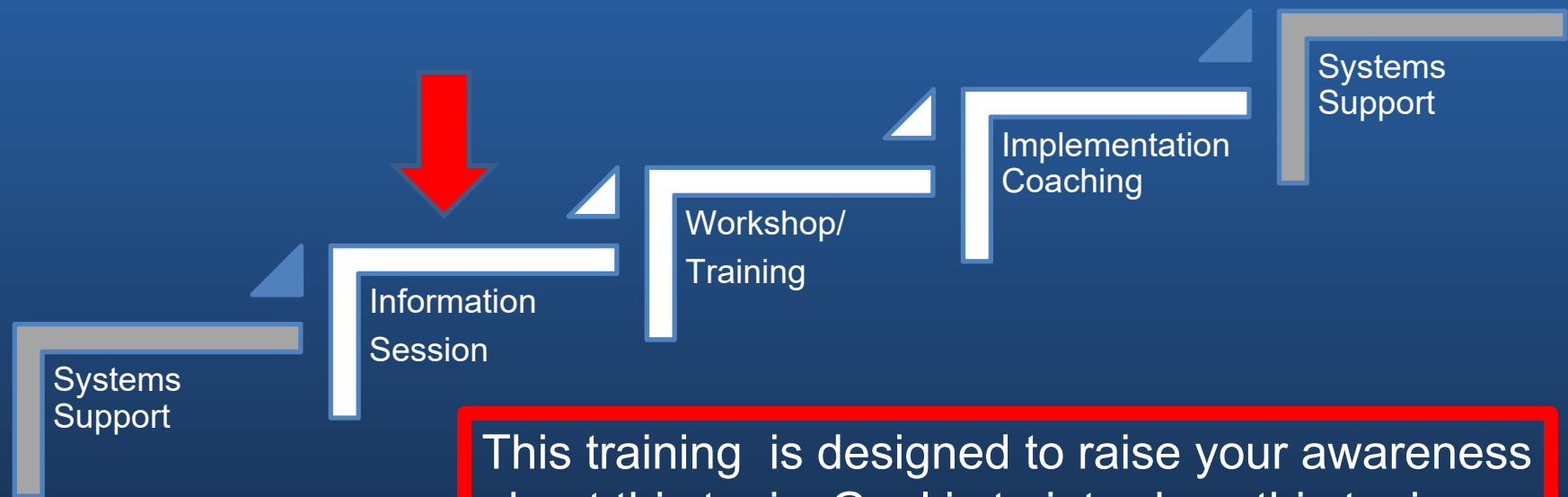


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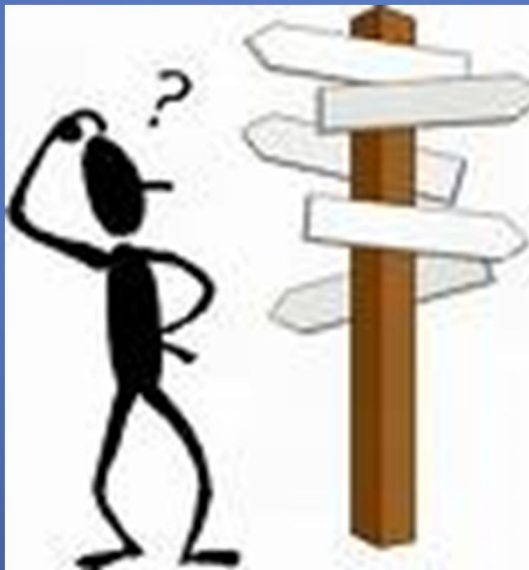
# Levels of Professional Development to Reach Implementation



This training is designed to raise your awareness about this topic. Goal is to introduce this topic and share additional resources that you can access to increase your knowledge and use.

How many results do you think you would get if you did a  search for:

**“AUTISM TREATMENT”?**





autism treatment



[All](#)

[News](#)

[Images](#)

[Books](#)

[Videos](#)

[More](#)

[Settings](#)

[Tools](#)

About 204,000,000 results (0.85 seconds)

**Ad** · [www.soundsory.com/](http://www.soundsory.com/) (469) 579-8356

[Home-based listening program | For the brain and the body](#)

For **autism** spectrum disorders, ADHD, sensory issues, learning difficulties. A new multi-sensory program. 14 day money back. Rhythmical Filter. Bone conduction Headset. Secure Payment.

Courses: Home-based program, Auditory stimulation.

[Rhythmical Music Headset · Buy now - 10% off](#)

**RESULTS: 204,000,000 FOR AUTISM TREATMENT  
on  
May 3, 2020!!!!**

[Pricing Plans](#) · [Product Tour](#) · [Blog Center](#) · [Contact Us](#) · [Support Center](#)

**Ad** · [www.getanswersnow.com/autism-services](http://www.getanswersnow.com/autism-services)

[Online Autism Help | Autism Support For Parents](#)

You and your child deserve support during these stressful times. We're here to help.

# MYRIAD OF TREATMENTS FOR ASD

- Treatments for ASD are more diverse than any other known disability
- Treatment claims range from amelioration to recovery
- Many interventions with no scientific evidence have been recommended for individuals with ASD



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# 2 IMPORTANT ASD EBP RESOURCES

## National Clearinghouse on Autism Evidence and Practice (NCAEP)

1. 28 Evidence Based Practices
2. AFIRM
3. CSESA
4. EBPs for Young Children

**Released  
April 2020**

<https://ncaep.fpg.unc.edu/>  
<http://afirm.fpg.unc.edu>  
<http://csesa.fpg.unc.edu>  
<http://asdtoddler.fpg.unc.edu>  
[www.captain.ca.gov](http://www.captain.ca.gov)

## National Autism Center (NAC)

1. National Standards Project Report-Phase 2  
NSP2

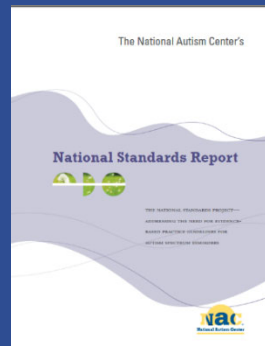
**Released  
April 2015**

[www.nationalautismcenter.org](http://www.nationalautismcenter.org)  
[www.captain.ca.gov](http://www.captain.ca.gov)



# A History of Systematic Reviews of the Literature for Evidence Based Practices (EBPs)

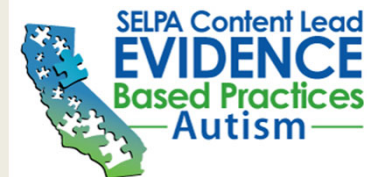
- In 2009, 11 Established Treatments
  - Reviewed by National Standards Project from National Autism Center, Phase 1 (NSP1)
  - Included research for the years: 1957-2007



[www.nationalautismcenter.org](http://www.nationalautismcenter.org)



[www.captain.ca.gov](http://www.captain.ca.gov)  
[www.nationalautismcenter.org](http://www.nationalautismcenter.org)



# A History of Systematic Reviews of the Literature for Evidence Based Practices (EBPs)

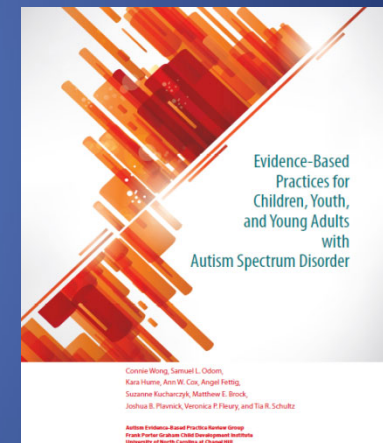
- **In 2010, 24 EBPs**

- National Professional Development Center (NPDC)
- Included 10 years, 1997-2007 (175 Research Studies)
- Funded by OSEP (Office of Special Education Programs, US Department of Education)

- **In 2014, 27 EBPs**

- 2<sup>nd</sup> review conducted by NPDC
- Included 22 years, 1990-2011
  - 29,101 possible studies → 456 studies
  - RCT, quasi-experimental, single case design
- Strength of evidence for assessment
- Based on number, type of studies using each EBP

<http://autismpdc.fpg.unc.edu/>



# A History of Systematic Reviews of the Literature for Evidence Based Practices (EBPs)

- In 2015, 14 Established Interventions Under Age 22  
1 Established Intervention Age 22+
  - 2<sup>nd</sup> review conducted by National Standards Project, National Autism Center, Phase 2 (NSP2)
- Reviewed studies published in peer reviewed journals between 2007 and February of 2012
  - 351 articles (ages 0-22) and 27 articles (ages 22+)
  - included studies if the interventions could be implemented in or by school systems, early intervention, home, hospital, vocational, and/or community-based programs or in clinic settings



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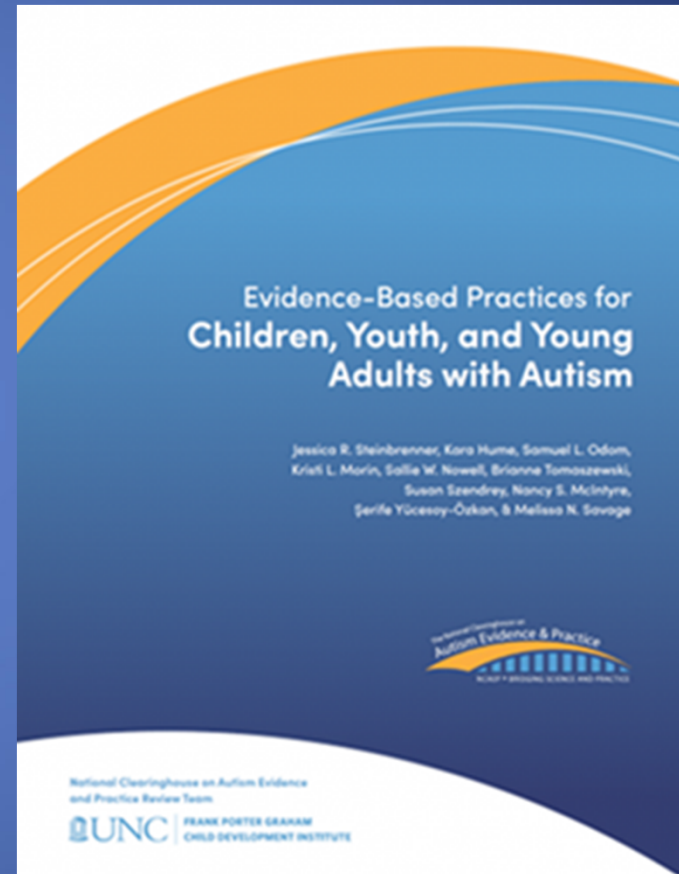


**NEW!**

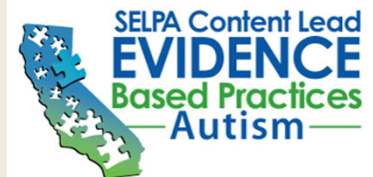
# April 2020 Report

National Clearinghouse on Autism Evidence and Practice  
(NCAEP)

NCAEP updated the previous NPDC report (Wong et al. 2014) and synthesizes intervention research published between 1990 and 2017



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# National Clearinghouse on Autism Evidence and Practice

National Clearinghouse on Autism Evidence and Practice (NCAEP) was formed with the purpose of providing a continuation of the NPDC systematic reviews

The screenshot shows the homepage of the National Clearinghouse on Autism Evidence and Practice (NCAEP). The header features the NCAEP logo, a "GIVE NOW" button, social media icons for Facebook and Twitter, and a search bar. The main navigation includes links for Home, About NCAEP, News & Updates, and Research & Resources. A prominent orange banner announces that the new report on Evidence-Based Practices is complete and ready for viewing. Below this, three main content areas are displayed: "BRIDGING SCIENCE AND PRACTICE" with a "LEARN MORE" button, "2020 EVIDENCE-BASED PRACTICES REPORT" with a "DOWNLOAD HERE" button, and "AUTISM FOCUSED INTERVENTION RESOURCES AND MODULES" with a "LOGIN" button.

The National Clearinghouse on Autism Evidence and Practice (NCAEP) is a continuation of the systematic review completed by the National Professional Development Center on Autism Spectrum Disorders (NPDC).

[LEARN MORE](#)

[2020 EVIDENCE-BASED PRACTICES REPORT](#)

[DOWNLOAD HERE](#)

[AUTISM FOCUSED INTERVENTION RESOURCES AND MODULES](#)

[LOGIN](#)

<https://ncaep.fpg.unc.edu/home>  
[www.captain.ca.gov](http://www.captain.ca.gov)

# The National Autism Center Announces the Launch of the National Standards Project, Phase 3

*We are now recruiting individuals interested in volunteering as article reviewers for Phase 3!*

**NAC IS UPDATING THEIR REVIEW TOO!  
Reviewing research through 2018**

The National Standards Project was designed to give educators, parents, practitioners, and organizations the information and resources ~~the need to make informed choices about effective interventions for~~ individuals with autism spectrum disorder (ASD).

Phase 1 (released in 2009) examined and quantified the level of research supporting interventions that target the core characteristics of ASD in children, adolescents, and young adults (below 22 years of age) on the autism spectrum.

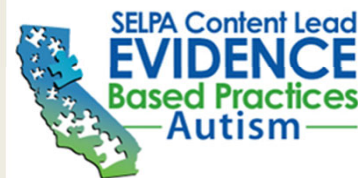
Phase 2 (released in 2015) provides an update to the literature for interventions for those under age 22, and also included studies evaluating interventions for adults (22+), which had never been systematically evaluated.

**Release Date  
2021**

The primary goal of this newest phase of the National Standards Project is to provide updated information about which interventions have been shown to be effective for individuals with autism spectrum disorder across the lifespan. Phase 3 will include all previous literature from Phases 1 and 2 of the Project, as well as all new research conducted through 2018. The report will be released in 2021 by the National Autism Center at May Institute.



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# 2 IMPORTANT ASD EBP RESOURCES

National Clearinghouse on Autism Evidence and Practice (NCAEP)

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[www.captain.ca.gov](http://www.captain.ca.gov)

1. National Standards Project Report Phase 2 NSP2

Released April 2015

[www.nationalautismcenter.org](http://www.nationalautismcenter.org)  
[www.captain.ca.gov](http://www.captain.ca.gov)

Let's talk about the NCAEP first!



**NEW!**

## Evidence-Based Practices for Children, Youth, and Young Adults with Autism

Jessica R. Steinbrenner, Kara Hume, Samuel L. Odom,  
Kristi L. Morin, Sallie W. Nowell, Brianne Tomaszewski,  
Susan Szendrey, Nancy S. McIntyre,  
Şerife Yücesoy-Özkan, & Melissa N. Savage

The National Clearinghouse on  
Autism Evidence & Practice  
NCAEP • BRIDGING SCIENCE AND PRACTICE

National Clearinghouse on Autism Evidence  
and Practice Review Team

 **UNC** | FRANK PORTER GRAHAM  
CHILD DEVELOPMENT INSTITUTE

**Released  
APRIL 2020**

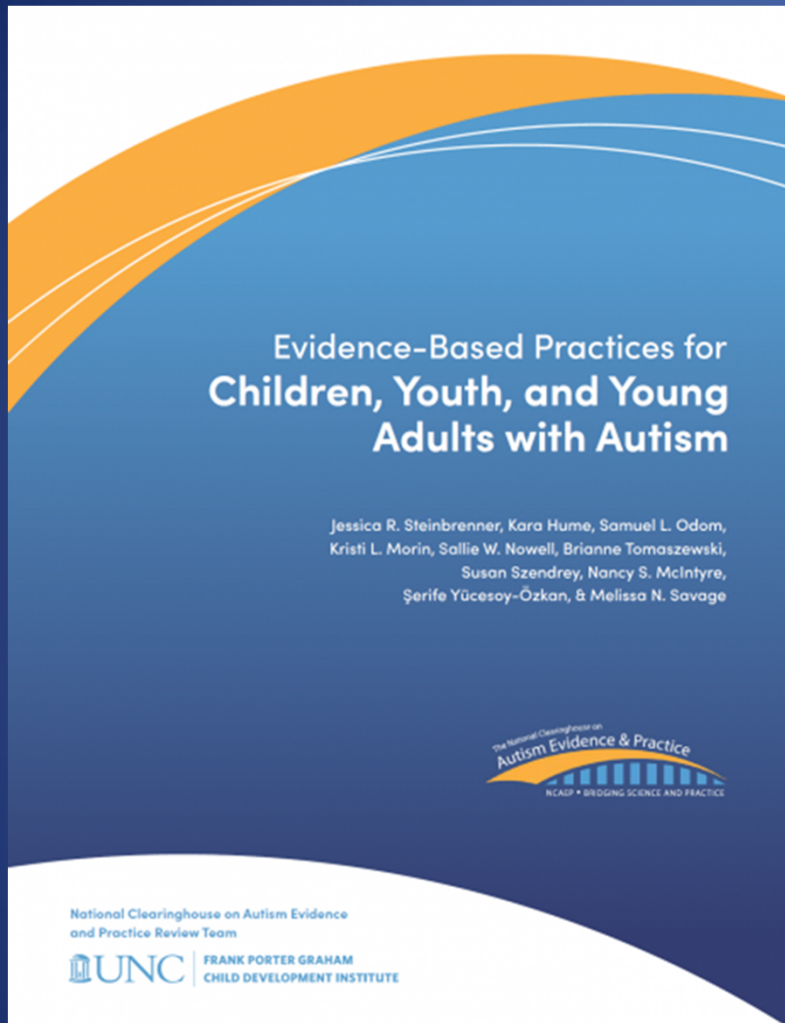
<https://ncaep.fpg.unc.edu/>



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# What's in this report?



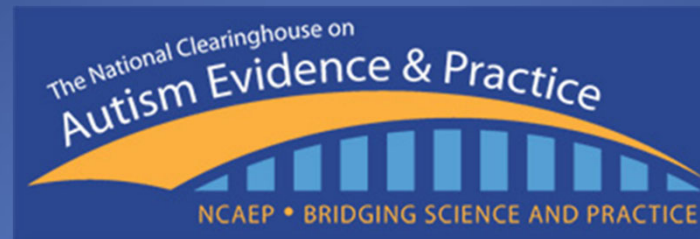
Citation: Steinbrenner, J. R., Hume, K., Odom, S. L., Morin, K. L., Nowell, S. W., Tomaszewski, B., Szendrey, S., McIntyre, N. S., Yücesoy-Özkan, S., & Savage, M. N. (2020). Evidence-based practices for children, youth, and young adults with Autism. The University of North Carolina at Chapel Hill, Frank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



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# Definition of EBP (NCAEP)



## NCAEP definition of an EBP:

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

# Criteria for Qualification of an EBP

**2+ group design studies**  
Two high quality group design studies conducted by at least two different researchers or research groups

**2+**

OR

**5+ single case design studies**  
Five high quality single case design studies conducted by three different investigators or research groups and having a total of at least 20 participants across studies

**5+**

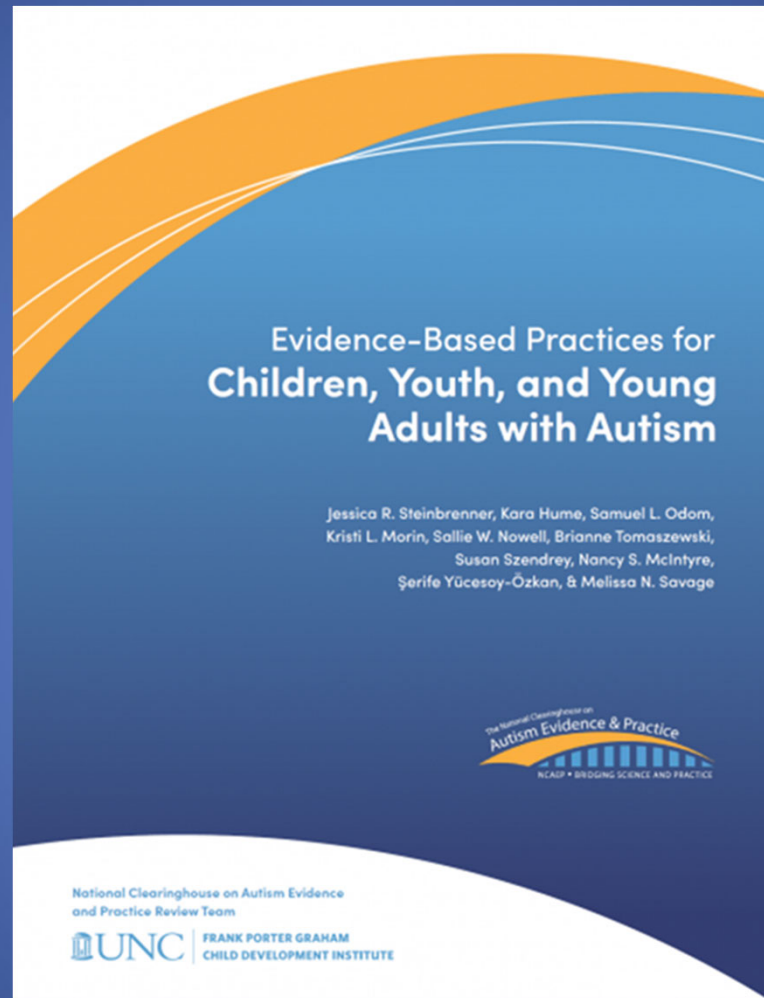
OR

**Combination of evidence**  
One high quality group design study and at least three high quality single case design studies conducted by at least two different investigators or research groups (across the group and single case design studies)

**1+3**



# What are these 28 EBPs?



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# 28 Evidence Based Practices (2020)

Antecedent-Based Interventions

Augmentative and Alternative  
Communication

Behavioral Momentum Intervention

Cognitive Behavioral/Instructional  
Strategies

Differential Reinforcement of Alternative,  
Incompatible, or Other Behavior

Direct Instruction

Discrete Trial Training

Exercise and Movement

Extinction

Functional Behavioral Assessment

Functional Communication Training

Modeling

Music-Mediated Intervention

Naturalistic Intervention

Parent-Implemented Intervention

Peer-Based Instruction and  
intervention

Prompting

Reinforcement

Response Interruption and Redirection

Self-Management

Sensory Integration

Social Narratives

Social Skills Training

Task Analysis

Technology-Aided Intervention and  
Instruction

Time Delay

Video Modeling

Visual Supports

# 5 New Evidence Based Practices

Antecedent-Based Interventions

**Augmentative and Alternative Communication**

**Behavioral Momentum Intervention**

Cognitive Behavioral/Instructional Strategies

Differential Reinforcement of Alternative, Incompatible, or Other Behavior

**Direct Instruction**

Discrete Trial Training

Exercise and Movement

Extinction

Functional Behavioral Assessment

Functional Communication Training

Modeling

**Music-Mediated Intervention**

Naturalistic Intervention

Parent-Implemented Intervention

Peer-Based Instruction and intervention

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Response Interruption and Redirection

Self-Management

**Sensory Integration\***

Social Narratives

Social Skills Training

Task Analysis

Technology-Aided Intervention and Instruction

Time Delay

Video Modeling

Visual Supports

\*"It is important to note that Sensory Integration refers explicitly to the model developed by Jean Ayers (2005) and not to a variety of unsupported interventions that address sensory issues (Barton et al., 2015 Case-Smith et al., 2015; Watling & Hauer, 2015). " Page 41 of NCAEP Report

# Manualized Interventions Meeting Criteria for EBPs (MIMCs)

**NEW!**

“Interventions that clearly fit the EBP categorical definitions but had themselves enough evidence to be classified as an EBP.”

**MIMCs are 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.

# Manualized Interventions Meeting Criteria for EBPs (MIMCs)



MIMC	Found in this Evidence Based Practice
PECS	Augmentative and Alternative Communication
JASPER	Naturalistic Intervention
Milieu Teaching	Naturalistic Intervention
Pivotal Response Training	Naturalistic Intervention
Project ImPACT	Parent-Mediated Intervention
Stepping Stones/Triple P	Parent-Mediated Intervention
Social Stories	Social Narratives
PEERS	Social Skills Training
FaceSay	Technology Aided Instruction and Intervention
Mindreading	Technology Aided Instruction and Intervention



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# Focused Interventions with Some Evidence from NCAEP Review Period (1990-2011) RECATEGORIZED INTO 2020 EBP CATEGORIES



FOCUSED INTERVENTION	FOUND IN EVIDENCE BASED PRACTICE
Aided Language Modeling	Augmentative and Alternative Communication
Cooperative Learning Groups	Peer-Based Instruction and Intervention
Handwriting without Tears	Modeling, Prompting and Visual Supports
Independent Work Systems	Visual Supports
Music Intensity	Antecedent Based Intervention
Reciprocal Imitation Training	Naturalistic Intervention
Schema-Based Strategy Instruction	Cognitive Behavioral/Instructional Strategies
Self-Regulated Strategy Development Writing Intervention	Cognitive Behavioral/Instructional Strategies
Sentence Combining Technique	Visual Supports
Test Taking Strategy Instruction	Cognitive Behavioral/Instructional Strategies
Theory of Mind Training	Social Skills Training
Toilet Training	Antecedent Based Intervention
Touch-Point Instruction	Visual Supports



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Theory of Mind Training	Social Skills Training
Toilet Training	Antecedent Based Intervention
Touch-Point Instruction	Visual Supports



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# Do Not Yet Have Sufficient Evidence to Meet Criteria for an EBP (page 31)

1990-2010 Review Period	Compilation for 1990-2017 Review Period	Description
Aided Language Modeling	Augmentative and Alternative Communication	Use of several augmentative and alternative communication strategies (e.g., pointing with finger, requested pointing, use of communication symbol and vocalization together)
Cooperative Learning Groups	Peer-Based Instruction and Intervention	Academic learning tasks organized around joint activities and goals
Handwriting Without Tears	Modeling, Prompting, and Visual Supports	Multisensory activities promoting fine motor and writing skills
Independent Work Systems	Visual Supports	Organized sets of visual information that inform a learner about participation in an activity, includes clear specification of task(s), signals when task is finished, and a cue for the next activity
Music Intensity	Antecedent-Based Interventions	Different levels of music volume used to affect vocal intensity
Reciprocal Imitation Training	Naturalistic Intervention	Therapist or teacher repeats the actions, vocalizations, or other behaviors of the learner to provide learner's imitation and other goals
Schema-Based Strategy Instruction	Cognitive Behavioral/ Instructional Strategies	Cognitive strategy for establishing mental representations to promote addition and subtraction
Self-Regulated Strategy Development Writing Intervention	Cognitive Behavioral/ Instructional Strategies	Instructional package involving explanation of strategy and self-monitoring to teach writing skills
Sentence Combining Technique	Visual Supports	Instructional package including teacher modeling, student practice, and worksheet to increase adjective use in writing
Test Taking Strategy Instruction	Cognitive Behavioral/ Instructional Strategies	Instructional package involving modeling, mnemonic devices, verbal practice sessions, controlled practice sessions, advanced practice sessions
Theory of Mind Training	Social Skills Treatment	Structured training and practice of using theory of mind skills that includes a parent component
Token Training	Antecedent-Based Intervention	Modification of token training program developed by Auhn and Fox (1977)
Touch-Point Instruction	Visual Supports	Tablet and number line materials used to introduce math and numeracy concepts

Animal Assisted Intervention

Auditory Integration Training

Collaborative Model for Promoting

Competence and Success

(COMPASS)/Collaborative Coaching

Exposure

Massage/Touch Therapy

Matrix Training

Outdoor Adventure

Perceptual Motor

Person Centered Planning

Punishment

Sensory Diet

Systematic Transition in Education Programme for ASD (STEP-ASD)



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# EBPs and DEFINITIONS OF 28 EBPs

## Table 3.1 Pages 29-30

Table 3.1 Evidence-based practices, definitions, and number of articles across review periods

Evidence-Based Practice	Definition	Empirical Support		
		1990-2011 (n)	2012-2017 (n)	1990-2017 (n)
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.	29	20	49
Augmentative and 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).	9	35	44
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.	8	4	12
Cognitive Behavioral/ Instructional Strategies (CBIS)	Instruction on management or control of cognitive processes that lead to change in behavioral, social, or academic behavior.	7	43	50
Differential Reinforcement of Alternative, Incompatible, or Other Behavior (DRA)	A systematic process that increases desirable behavior or the absence of an undesirable behavior by providing positive consequences for demonstration/demonstration of such behavior. These consequences may be provided when the learner (a) engages in a specific desirable behavior other than the undesirable behavior (DRA), b) engages in a behavior that is physically impossible to do while exhibiting the undesirable behavior (DRI), or c) not engaging in the undesirable behavior (DRC).	27	31	58
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.	2	6	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.	16	22	38
Exercise and Movement (EM)	Interventions that use physical exertion, specific motor skills/ techniques, or mindful movement to target a variety of skills and behaviors.	6	11	17
Extinction (EXT)	The removal of reinforcing consequences of a challenging behavior in order to reduce the future occurrence of that behavior.	13	12	25
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	10	21
Functional Communication Training (FCT)	A set of practices that replace a challenging behavior that has a communication function with more appropriate and effective communication behaviors or skills.	12	19	31
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.	10	18	28
Music-Mediated Intervention (MMI)	Intervention that incorporates songs, melodic imitation, and/or rhythm to support learning or performance of skill/behaviors. It includes music therapy, as well as other interventions that incorporate music to address target skills.	3	4	7
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 skill/behaviors.	26	49	75

continued on next page

**Evidence-Based Practices for Children, Youth, and Young Adults with Autism**

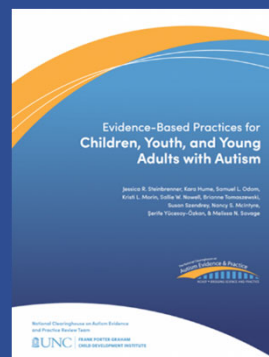
Jessica R. Steinbrenner, Kara Hume, Samuel L. Odom, Kristi L. Morin, Sallie W. Nowell, Brianne Tomaszewski, Susan Szendrey, Nancy S. McIntyre, Şerife Yücesoy-Özkan, & Melissa N. Savage

The National Clearinghouse on Autism Evidence & Practice  
NCAEP • BRIDGING SCIENCE AND PRACTICE

National Clearinghouse on Autism Evidence and Practice Review Team  
UNC | FRANK PORTER GRAHAM CHILD DEVELOPMENT INSTITUTE

# Here's a Closer Look DEFINITIONS OF 28 EBPs

Evidence-Based Practice	Definition	Empirical Support		
		1990-2011 (n)	2012-2017 (n)	1990-2017 (n)
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.	29	20	<b>49</b>
Augmentative and 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)	9	35	<b>44</b>
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.	8	4	<b>12</b>
Cognitive Behavioral/ Instructional Strategies (CBIS)	Instruction on management or control of cognitive processes that lead to changes in behavioral, social, or academic behavior.	7	43	<b>50</b>
Differential Reinforcement of Alternative, Incompatible, or	A systematic process that increases desirable behavior or the absence of an undesirable behavior by providing positive consequences	27	31	<b>58</b>



# INTERVENTION FACT SHEETS AVAILABLE FOR EACH OF THE 28 EBPs

Name of EBP		Augmentative and Alternative Communication (AAC)					
Definition of EBP		<p>Augmentative and Alternative Communication (AAC) interventions use and/or teach the use of a system of communication that is not verbal/vocal including aided and unaided communication systems. Unaided communication systems do not use any materials or technology (e.g., sign language and gestures). Aided communication systems include low-tech systems (e.g., exchanging objects/pictures or pointing to letters) and extend to high-tech speech-generating devices (SGDs) and applications that allow other devices (i.e., phones, tablets) to serve as SGDs. Methods of teaching AAC use are also included in this category (e.g., Aided Language Modeling) which may include other EBPs such as prompting, reinforcement, visual supports, and peer-mediated interventions.</p> <p>• Manualized Interventions Meeting Criteria: Picture Exchange Communication System® (PECS); Bondy and Frost, 1993.</p>					
Outcome Areas		Age Ranges					
		0-2	3-5	6-11	12-18	19-26	19-22
		Infants	Preschoolers	Elementary School	Middle School	High School	Young Adults
Communication	Communication	✓	✓	✓	✓	✓	
	Social	✓	✓	✓		✓	
	Joint attention	✓	✓	✓			
	Play	✓	✓	✓			
Cognitive	School readiness						
	Academic/Pre-academic		✓	✓			
	Adaptive/self-help						
Challenging/Interfering behavior	Challenging/Interfering behavior		✓	✓			
	Vocational						
	Motor					✓	
Mental health	Mental health						
	Self-determination						

References

1. Agiur, M. M., & Vance, M. (2016). A comparison of PECS and iPad to teach requesting to pre-schoolers with autistic spectrum disorders. *Augmentative and Alternative Communication, 32*(1), 58-68. <https://doi.org/10.1080/07434082.08.7108363>
2. Ali, E., MacFarland, S. Z., & Umbreit, J. (2017). Effectiveness of combining tangible symbols with the Picture Exchange Communication System to teach requesting skills to children with multiple disabilities including visual impairment. *Education and Training in Autism and Developmental Disabilities, 46*(3), 425-435.
3. Almiral, D., DiStefano, C., Chang, Y.-C., Shire, S., Kaxiraj, A., Lu, X., Nahum-Shani, I., Lands, R., Mathy, R., & Kaxiraj, C. (2016). Longitudinal effects of adaptive interventions with a speech-generating device in minimally verbal children with ASD. *Journal of Clinical Child & Adolescent Psychology, 45*(4), 440-456. <https://doi.org/10.1080/15374416.2016.1138407>
4. Alzraayer, N. M., Banda, D. R., & Koul, R. (2017). Teaching children with autism spectrum disorder and other developmental disabilities to perform multi-step requesting using an iPad. *Augmentative and Alternative Communication, 33*(2), 65-76. <https://doi.org/10.1080/07434082.08.71306887>











- Definition of the intervention
- Age Range
- Outcome Areas
- References (specific articles that provide the evidence for the efficacy of the practice)

# 28 EBPs Matrix

## Available on the CAPTAIN Website

[www.captain.ca.gov](http://www.captain.ca.gov)

Not secure | [captain.ca.gov/resources.html](http://captain.ca.gov/resources.html)

	Matrix of EBPs 2020 NCAEP 
	EBP Matrix Definitions 2020 NCAEP 
	CAPTAIN Summit-Welcome, Year in Review, & Hot Topics- November 2019 
	CAPTAIN Summit - Keynote Panel- Supporting Social Emotional & Mental Health Well-Being of Individuals with Autism  <ul style="list-style-type: none"><li>• Marjorie Solomon, Ph.D., UC Davis (Presenter)</li><li>• Patrick Dwyer, Ph.D. Student, UC Davis, Self-Advocate (Presenter)</li><li>• Lauren Brookman-Frazee, Ph.D. UC San Diego (Presenter)</li><li>• Karin Jinbo, M.A., Sp.Ed. Coordinator, Mental Health, Santa Ana Unified School District (Moderator)</li></ul>
	CAPTAIN Summit - Motivational Interviewing Workshop - January 2019 

### Quick Links

- National Professional Development Center On Autism Spectrum Disorders
- National Clearinghouse on Autism Evidence and Practice
- AFIRM ASD Learning Modules
- National Autism Center
- CAPTAIN Resources
  - EBP Trainings
  - SHOWCASE
- Autism Fact Sheets
  - English/Spanish
  - Other Languages
- Ask a Specialist - ASD
- CAPTAIN Cadre

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

Evidence-Based Practices See Table 3.1 to link abbreviations to EBPs	Academic/ Pre-academic			Adaptive/ Self-help			Challenging/ Interfering behavior			Cognitive			Communi- cation			Joint attention			Mental health			Motor			Play			School readiness			Self- determination			Social			Vocational		
	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																																							
AAC																																							
BMI																																							
CBIS																																							
DR																																							
DI																																							
DTT																																							
EXM																																							
EXT																																							
FBA																																							
FCT																																							
MD																																							
MMI																																							
NI																																							
PII																																							
PBII																																							
PP																																							
R																																							
RIR																																							
SM																																							
SI																																							
SN																																							
SST																																							
TA																																							
TAII																																							
TD																																							
VM																																							
VS																																							

# EBP Definitions Chart on CAPTAIN website

Evidence-Based Practices for Children, Youth, and Young Adults with Autism National Clearinghouse on Autism Evidence and Practice Review 2020		
	Evidence-Based Practices	DEFINITION
ABI	Antecedent-Based Interventions	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.
AAC	Augmentative and Alternative Communication	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)
BMI	Behavioral Momentum Intervention	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.
CBIS	Cognitive Behavioral/ Instructional Strategies	Instruction on management or control of cognitive processes that lead to changes in behavioral, social, or academic behavior.
DR	Differential Reinforcement of Alternative, Incompatible, or Other Behavior	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).
DI	Direct Instruction	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.
DTT	Discrete Trial Training	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.
EXM	Exercise and Movement	Interventions that use physical exertion, specific motor skills/techniques, or mindful movement to target a variety of skills and behaviors.
EXT	Extinction	The removal of reinforcing consequences of a challenging behavior in order to reduce the future occurrence of that behavior.
FBA	Functional Behavioral Assessment	A systematic way of determining the underlying function or purpose of a behavior so that an effective intervention plan can be developed.
FCT	Functional Communication Training	A set of practices that replace a challenging behavior that has a communication function with more appropriate and effective communication behaviors or skills.
MD	Modeling	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.



[www.captain.ca.gov](http://www.captain.ca.gov)





## GOAL:

Rather than tantrumming or grabbing items that she needs/wants, Lucia (age 5, nonverbal) will request items and assistance from others on 8:10 daily opportunities as measured by teacher collected frequency data.

1. What is the goal targeting?

2. What EBPs are options?  
(refer to the EBP matrix)





# What EBPs did you select?



# Implementation Fidelity is Critical!

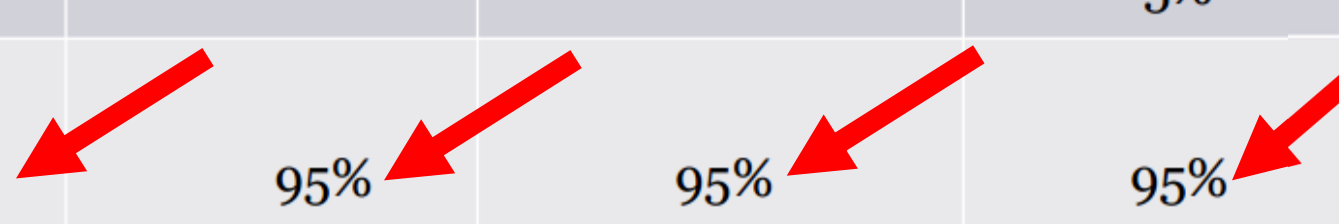
What does this mean?



“Implementing an intervention in the same manner in which it was done in the evidence-based research”

## Training Outcomes Related to Training Components

<i>Training Components</i>	<b>Training Outcomes</b>		
	<b>Knowledge of Content</b>	<b>Skill Implementation</b>	<b>Classroom Application</b>
<i>Presentation/ Lecture</i>	10%	5%	0%
<i>Plus Demonstration in Training</i>	30%	20%	0%
<i>Plus Practice in Training</i>	60%	60%	5%
<i>Plus Coaching/ Admin Support Data Feedback</i>	95%	95%	95%



**Source:**

Joyce, B., & Showers, B. (2002). *Student achievement through staff development* (3rd ed.). Alexandria, VA: Association for Supervision and Curriculum Development.

# Implementation Fidelity is Critical!

## How implementation fidelity achieved:



1. Use Implementation Checklists for the EBP to capture fidelity of implementation by AFIRM
2. Refer to EBP Fact Sheets by NCAEP
3. Use reliable self-learning modules on EBPs-AFIRM
4. Attend training on the EBPs by CAPTAIN Cadre
5. Access coaching on the EBP until fidelity is attained



# FREE 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 ASD from birth to 22 years of age



A screenshot of the AFIRM website. The URL in the browser is afirm.fpg.unc.edu/afirm-modules. The page features the AFIRM logo and navigation links: AFIRM Modules, Learn with AFIRM, Selecting EBPs, and Resources. A green box highlights a 'Prompting' module with the text: 'Use prompting to reduce incorrect responding as learners with ASD acquire new skills.' and a button that says 'Learn more about Prompting'. To the right of the text is a photo of a woman interacting with a child at a table. Below the main content, there is a section titled 'AFIRM Modules' with a brief description and a link to 'Learn with AFIRM'.

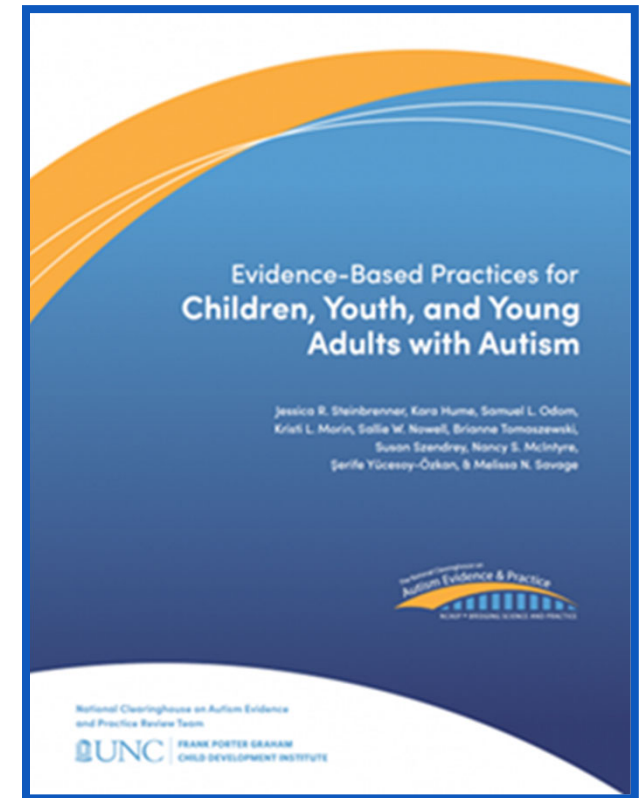
There's a  
Learning  
Module for  
most of the  
28 EBPs



[www.captain.ca.gov](http://www.captain.ca.gov)  
<http://afirm.fpg.unc.edu/afirm-modules>

# NEW AFIRM MODULES COMING

“The next step for the NCAEP will be to use the new information to revise the AFIRM modules to reflect the most current scientific information about focused intervention practices.”



Autism Focused Intervention  
Resources & Modules

# AFIRM

## Autism Focused Intervention Resources and Modules

### What you'll learn with AFIRM Modules:

- Key components of an EBP
- Behaviors and skills that can be addressed
- A step-by-step process for applying the practice
- Specific resources that you can download and customize for your own use



# AFIRM: Professional Development Certificate

## BCBA (Approved BACB Type 2 CEUs) SLP (ASHA CCCs)

### Certificate Track

- Case examples demonstrating the use of the EBP
- Multimedia presentation
- Pre-test required
- Post-assessment required
- Evaluation required



### Non-Certificate Track

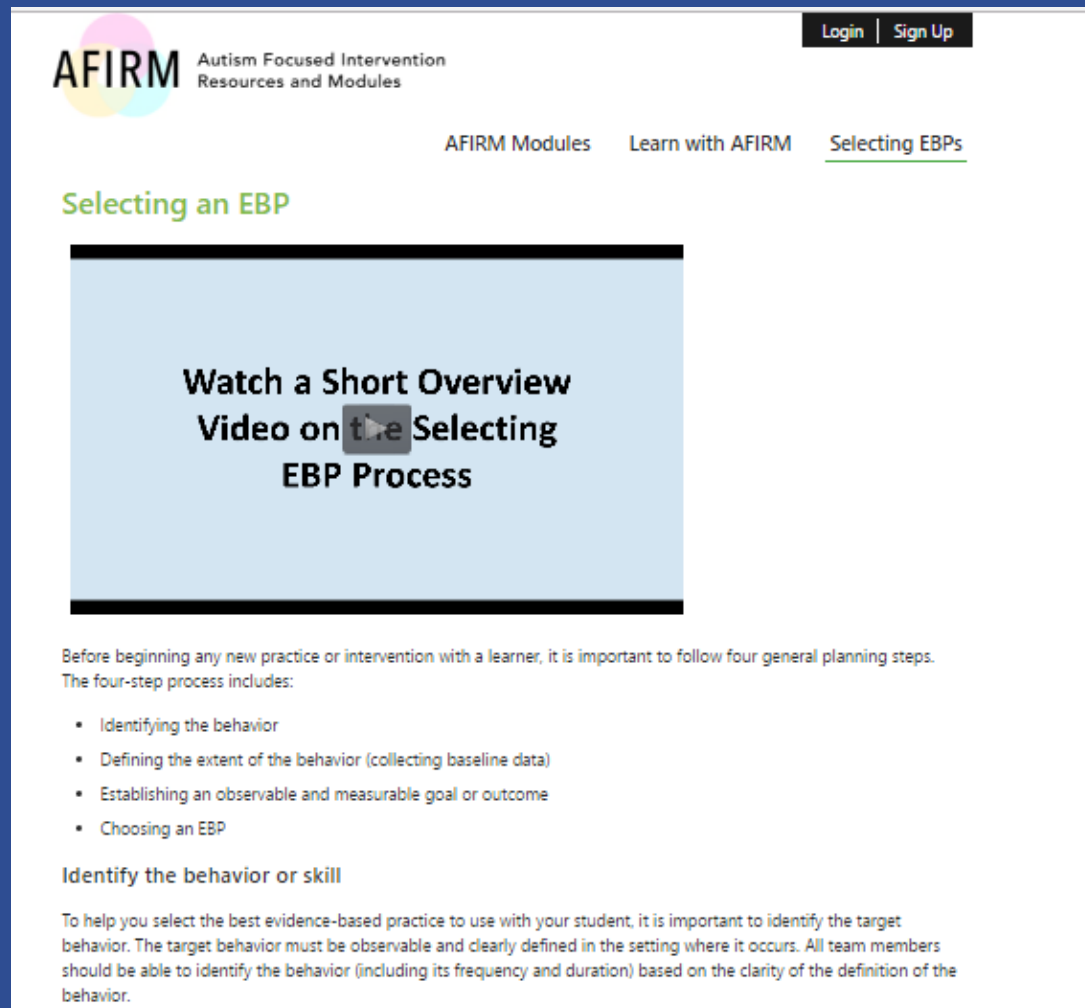
- Case examples demonstrating the use of the EBP
- Multimedia presentation
  - Pre-test required
  - Post-assessment optional
  - Evaluation optional



# Helpful AFIRM Learning Module

## How to Select an EBP

<http://afirm.fpg.unc.edu/selecting-ebp>



The screenshot shows the AFIRM website interface. At the top left is the AFIRM logo with the text 'Autism Focused Intervention Resources and Modules'. To the right are 'Login' and 'Sign Up' buttons. Below the logo is a navigation menu with 'AFIRM Modules', 'Learn with AFIRM', and 'Selecting EBPs' (which is underlined). The main heading is 'Selecting an EBP'. Below this is a video player area with the text 'Watch a Short Overview Video on the Selecting EBP Process'. Underneath the video is a paragraph of text followed by a bulleted list of four steps: identifying the behavior, defining the extent of the behavior, establishing an observable and measurable goal, and choosing an EBP. The final section is titled 'Identify the behavior or skill' and contains a paragraph of text.

AFIRM Autism Focused Intervention Resources and Modules

Login | Sign Up

AFIRM Modules Learn with AFIRM Selecting EBPs

### Selecting an EBP

Watch a Short Overview Video on the Selecting EBP Process

Before beginning any new practice or intervention with a learner, it is important to follow four general planning steps. The four-step process includes:

- Identifying the behavior
- Defining the extent of the behavior (collecting baseline data)
- Establishing an observable and measurable goal or outcome
- Choosing an EBP

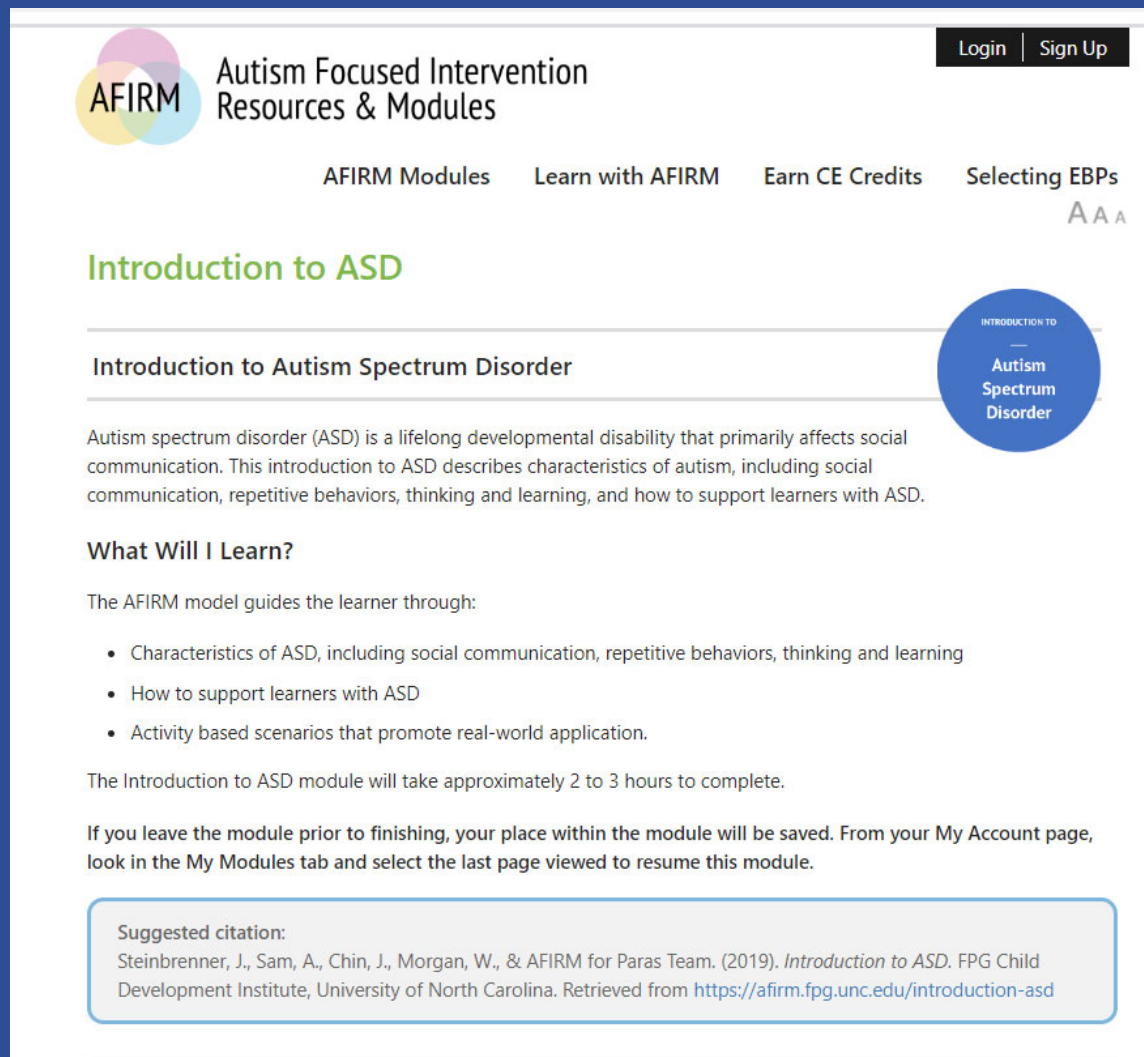
#### Identify the behavior or skill

To help you select the best evidence-based practice to use with your student, it is important to identify the target 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.

# Helpful AFIRM Learning Module

## Introduction to ASD

<https://afirm.fpg.unc.edu/node/2524>



The screenshot shows the AFIRM website interface. At the top left is the AFIRM logo, which consists of three overlapping circles in purple, yellow, and blue, with the text 'AFIRM' to its right. To the right of the logo is the text 'Autism Focused Intervention Resources & Modules'. In the top right corner, there are 'Login' and 'Sign Up' buttons. Below the logo and text is a navigation menu with links for 'AFIRM Modules', 'Learn with AFIRM', 'Earn CE Credits', and 'Selecting EBPs'. To the right of the navigation menu are three small 'A' icons for accessibility. The main heading is 'Introduction to ASD' in green. Below this is a sub-heading 'Introduction to Autism Spectrum Disorder'. To the right of the sub-heading is a blue circular button with the text 'INTRODUCTION TO Autism Spectrum Disorder'. The main text describes ASD as a lifelong developmental disability that primarily affects social communication. It then lists what the learner will learn, including characteristics of ASD, how to support learners with ASD, and activity-based scenarios. It also states that the module will take approximately 2 to 3 hours to complete. A note at the bottom indicates that if the learner leaves the module prior to finishing, their place will be saved. At the very bottom, there is a suggested citation for the module.

**AFIRM** Autism Focused Intervention Resources & Modules

Login | Sign Up

AFIRM Modules | Learn with AFIRM | Earn CE Credits | Selecting EBPs

AAA

### Introduction to ASD

#### Introduction to Autism Spectrum Disorder

INTRODUCTION TO  
Autism Spectrum Disorder

Autism spectrum disorder (ASD) is a lifelong developmental disability that primarily affects social communication. This introduction to ASD describes characteristics of autism, including social communication, repetitive behaviors, thinking and learning, and how to support learners with ASD.

#### What Will I Learn?

The AFIRM model guides the learner through:

- Characteristics of ASD, including social communication, repetitive behaviors, thinking and learning
- How to support learners with ASD
- Activity based scenarios that promote real-world application.

The Introduction to ASD module will take approximately 2 to 3 hours to complete.

If you leave the module prior to finishing, your place within the module will be saved. From your My Account page, look in the My Modules tab and select the last page viewed to resume this module.

**Suggested citation:**  
Steinbrenner, J., Sam, A., Chin, J., Morgan, W., & AFIRM for Paras Team. (2019). *Introduction to ASD*. FPG Child Development Institute, University of North Carolina. Retrieved from <https://afirm.fpg.unc.edu/introduction-asd>



## AFIRM Resources

Select a key word to search for AFIRM resources or filter AFIRM resources by category.

### Keyword Search

Apply

# IMPLEMENTATION RESOURCES

### Browse by Module

- Antecedent-based Intervention
- Cognitive Behavior Intervention
- Differential Reinforcement
- Discrete Trial Training
- Exercise
- Extinction
- Functional Behavior Assessment
- Functional Communication Training
- Modeling
- Naturalistic Intervention
- Parent Implemented Interventions
- Peer-Mediated Instruction and Intervention
- Picture Exchange Communication System
- Pivotal Response Training
- Prompting
- Response interruption and Redirection
- Reinforcement
- Scripting
- Self-management
- Social Narratives
- Social Skills Training
- Structured Play Groups
- Task Analysis
- Technology-aided Instruction and Intervention
- Time Delay
- Video Modeling
- Visual Supports

### Browse by Module Lesson

- Lesson 1 - Basics
- Lesson 2 - Planning for the Practice
- Lesson 3 - Using the Practice
- Lesson 4 - Monitoring Progress
- Additional Materials

### Browse by Document Type

- Evidence-base
- Implementation checklist
- Parent's guide
- Professional standards
- Step-by-Step practice guide
- Tip sheet for professionals
- EBP Brief Packet

Implementation Checklists

### AFIRM Videos

- Browse Videos

EBP Videos

# AFIRM **VIDEOS** of Evidence-Based Practices

<https://afirm.fpg.unc.edu/afirm-videos>

**AFIRM** Autism Focused Intervention Resources & Modules

My Account | Logout  
You are logged in.  
Need help? Visit the FAQs section

AFIRM Modules Learn with AFIRM Earn CE Credits Selecting EBPs Resources

## AFIRM Videos

Select a key word to search for AFIRM videos or filter AFIRM videos by category.

**Keyword Search**  **Apply**

### Browse by Module

- Antecedent-based Intervention
- Cognitive Behavior Intervention
- Differential Reinforcement
- Discrete Trial Training
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- Extinction
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- Structured Play Groups
- Task Analysis
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- Time Delay
- Video Modeling
- Visual Supports

### Browse by Module Lesson

- Lesson 1 - Basics
- Lesson 2 - Planning for the Practice
- Lesson 3 - Using the Practice
- Lesson 4 - Monitoring Progress
- Additional Materials

# Videos for most of the 28 EBPs

# Implementation Checklist Ensures Fidelity

- Used to assist with planning for EBP use
- Helps implementers self reflect on fidelity of use
- Helps coaches give objective feedback
- Helps to prevent drift

Visual Supports (VS) ---Implementation Checklist---					
	Observation	1	2	3	4
	Date				
	Observer's Initials				
<b>Before you start:</b>					
<b>Have you...</b>					
<input type="checkbox"/> Identified the behavior?					
<input type="checkbox"/> Collected baseline data through direct observation?					
<input type="checkbox"/> Established a goal or outcome that clearly states <b>when</b> the behavior will occur, <b>what</b> the target skill is, and <b>how</b> the team will know when the skill is mastered.					
<i>If the answer to any of these is "no", refer to the "Selecting EBPs" section on the website.</i>					
<b>Step 1: Planning</b>					
1.1 Identify visual supports needed to acquire or maintain target skills					
1.2 Develop/prepare visual support for learner based on individualized assessments					
1.3 Organize all needed materials					
<b>Step 2: Using</b>					
2.1 Teach learner how to use visual support					
- <i>Boundaries:</i>					
<input type="checkbox"/> Introduce boundary to learner					
<input type="checkbox"/> Use modeling to teach learner to stay within boundary					
<input type="checkbox"/> Use reinforcement to encourage learner to stay within boundary					
<input type="checkbox"/> Use corrective feedback when learner does not stay within boundary					
- <i>Cues:</i>					
<input type="checkbox"/> Show learner visual cue					
<input type="checkbox"/> Stand behind learner when prompting use of visual cue					
<input type="checkbox"/> Use concise, relevant words/terms while teaching visual cue					
<input type="checkbox"/> Assist learner in participating in activity/event with visual cue					
- <i>Schedules:</i>					
<input type="checkbox"/> Stand behind learner when prompting use of visual schedule					
<input type="checkbox"/> Place schedule information in learner's hand					
<input type="checkbox"/> Use concise, relevant words/terms					
<input type="checkbox"/> Assist learner in getting to designated activity/location, and prompt					
<input type="checkbox"/> Ensure learner remains in scheduled location until prompted to use					
<input type="checkbox"/> Repeat steps until learner is able to complete the sequence independently across activities/locations					
2.3 Use visual supports consistently and across settings					
<b>Step 3: Monitoring</b>					
3.1 Collect data on target behaviors and use of visual supports (independence during use and progress through forms/types of supports)					
3.2 Determine next steps based on learner progress					

AFIRM Autism Focused Intervention Resources and Modules



[www.captain.ca.gov](http://www.captain.ca.gov)



# SELF LEARNING MODULES FOR TODDLERS!

## NPDC-ASD Early Start Website

<http://asdtoddler.fpg.unc.edu>

The screenshot displays the website's header with logos for the ASD toddler initiative, The University of North Carolina at Chapel Hill, and Autism Speaks. Below the header is a navigation menu with 'Learning Modules', 'About', and 'Resources', and a search bar. The main content area features a large image of two hands holding a small white flower, with text overlay: 'Promoting evidence-based practices EBPS for young children, ages birth to 3, with Autism Spectrum Disorder (ASD)'. Below this image are three blue buttons: 'EBP Evidence-based Practices' (with a red arrow pointing to it), 'Early Intervention Professional Development & Coaching', and 'Guide to ASD Toddler Learning Modules'. At the bottom, a text block describes the initiative's expansion and funding.

ASD toddler initiative

THE UNIVERSITY of NORTH CAROLINA at CHAPEL HILL

AUTISM SPEAKS™ It's time to listen.

Learning Modules About Resources

Search

Promoting evidence-based practices  
EBPS for young children, ages birth to 3, with  
Autism Spectrum Disorder  
(ASD)

EBP  
Evidence-based  
Practices

Early  
Intervention  
Professional  
Development &  
Coaching

Guide to ASD  
Toddler  
Learning Modules

The Autism Spectrum Disorders (ASD) Toddler Initiative will expand on the work conducted by the [National Professional Development Center on Autism Spectrum Disorders](#) (NPDC-ASD) funded by the Office of Special Education Programs. The ASD Toddler Initiative will develop new materials and modify existing processes to support the use of evidence-based practices for young children (birth-3) and for their families.

# Resources for Older Individuals with ASD



csesa.fpg.unc.edu

CSESA  
The Center on Secondary Education for Students with Autism Spectrum Disorders

ABOUT THE CENTER RESEARCH RESOURCES MATERIALS

The Center on Secondary Education for Students with Autism Spectrum Disorders

The Center on Secondary Education for Students with Autism Spectrum Disorder (CSESA) is a research and development project funded by the U.S. Department of Education that focuses on developing, adapting, and studying a comprehensive school and community-based education program for high school students on the autism spectrum.

LEARN MORE >

700+ students and families participated in CSESA research activities

60 60 schools currently involved in the CSESA study

20+ resources available for educators, families, and students

Recent Research Activities

- Transition Planning for High School Students with ASD: Measuring Student, Parent, and Teacher Perspectives**  
A poster presentation from the 49th Annual Gattisburg Conference in San Diego, CA.  
Download: [CSESA\\_SSSC\\_Gattisburg\\_2016.pdf](#)
- Quality of High School Programs for Students with ASD in the United States**  
A poster presentation from the 49th Annual Gattisburg Conference in San Diego, CA.  
Download: [CSESA\\_APERO\\_Gattisburg\\_2016.pdf](#)
- Transitioning Together: A Family-Centered Transition Intervention for High School Students with ASD**  
An oral presentation from the DCDT 2015 conference in Portland, OR.  
Download: [CSESA\\_Transitioning Together\\_DCDT\\_2015.pdf](#)

MORE >

Key Resources

- Understanding Autism Professional Development Curriculum**  
This presentation is part of a professional development series created specifically for educators in middle and high schools serving students on the autism spectrum.
- Autism at-a-Glance: Supporting Functional Communication in High School**  
This Autism at-a-Glance was designed to support high school staff and family members in understanding and improving the communication skills of adolescents on the autism spectrum, specifically for students who have more significant communication needs.  
Download: [Supporting Functional Communication in High School.pdf](#)
- Secondary School Success Checklist**  
The Secondary School Success Checklist (SSSC) is an evaluation of student skills in independence and behavior, transition, social competence, and academic skills completed by staff, families, and students.  
Download: [Secondary School Success Checklist\\_2015.pdf](#)

MORE >

[www.captain.ca.gov](http://www.captain.ca.gov)  
<http://csesa.fpg.unc.edu>

## Presentation 1:

### Characteristics and Practices for Challenging Behavior

## Example of Resources



\*NOTE: If you are having difficulty with the video links embedded as part of the presentation, link to the videos on this page: <http://csesa.fpg.unc.edu/understanding-autism-presentation-1-videos>

- Facilitator Notes
- Participant Handout
- Activity Worksheet
- At My School Worksheet

Please review this notification of a video change made for Presentation 1, [Repetitive Behaviors and Restricted Interests video](#) (slide 17).

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## Presentation 2:

### Strategies for Classroom Success and Effective Use of Teacher Supports



## Autism at-a-Glance series

# Example of Resources

### Autism at-a-Glance: Supporting Success and Safety in Relationships

This Autism at-a-Glance was designed to support high school staff, family members, and individuals on the autism spectrum in understanding and supporting success and safety in dating relationships.

**Download:**  [Supporting Success and Safety in Relationships.pdf](#)

### Autism at-a-Glance: Exercise for Adolescents with ASD

This Autism at-a-Glance was designed to support high school staff and family members in understanding the benefits of exercise for adolescents on the autism spectrum, as well as provide tips and resources to help create successful exercise routines.

**Download:**  [Exercise for Adolescents with ASD.pdf](#)

### Autism at-a-Glance: Depression in Adolescents with ASD

This Autism at-a-Glance was designed to support high school staff and family members in understanding and recognizing symptoms of depression, and

### Autism at-a-Glance: Supporting Communication in High School

This issue of Autism at-a-Glance focuses on understanding and improving the communication skills of adolescents on the autism spectrum and specifically targets the needs of students who are able to communicate conversationally.

**Download:**  [Supporting Communication in High School.pdf](#)

### Autism at-a-Glance: Supporting Functional Communication in High School

This Autism at-a-Glance was designed to support high school staff and family members in understanding and improving the communication skills of adolescents on the autism spectrum, specifically for students who have more significant communication needs.

**Download:**  [Supporting Functional Communication in High School.pdf](#)

### Autism at-a-Glance: Getting a Driver's License

This Autism at-a-Glance was designed to support parents and other family members in supporting adolescents on the autism spectrum as they learn to drive and eventually take a driver's test for their license.

**Download:**  [Getting a Driver License.pdf](#)

### Welcome

CAPTAIN is a multiagency network developed to support the understanding and use of Evidence Based Practices for individuals affected by Autism Spectrum Disorder across the state.

CAPTAIN is dedicated to the following:

- Providing statewide access to trainings and resources in Evidence Based Practices (EBPs) that are culturally sensitive, family centered, cost effective, and competency based.
- Establishing supports that are locally based with trainer of trainers at the local level.
- Emphasizing how to use EBPs to assist students in accessing the California Common Core State Standards and developing College and Career Readiness.
- Providing ongoing training, support, and technical assistance to implement EBPs and ensure fidelity of implementation.
- Supporting the development of local multiagency collaborations to support consistent use of EBPs.
- Providing an annual training summit and a forum for collegial communication and support to CAPTAIN Cadre members.
- Providing web based access to materials and resources that are vetted and align with current EBPs.
- Providing information and outreach to other interested stakeholders and provider groups who could benefit from learning more about EBPs (E.g. Professional Organizations, Higher Education, Self Advocates, Allied Health Providers)



### Quick Links

- National Professional Development Center On Autism Spectrum Disorders
- AFIRM ASD Learning Modules
- National Autism Center
- Autism Internet Modules
- CAPTAIN Summit Resources
- Autism Fact Sheets
  - English/Spanish
  - Other Languages
- Ask a Specialist - ASD
- CAPTAIN Cadre
  - Regional Plans
- CAPTAIN Leadership
- Act Early
- Effective Early Childhood Transitions Guide
- ASD Toddler Initiative
- ADEPT

### CAPTAIN Partners

- Diagnostic Centers, CDE
- Family Resource Centers Network of California
- Center for Excellence for Developmental Disabilities at UC Davis MIND Institute
- USC University Center for Excellence in Developmental Disabilities (USC UCEDD)
- California Department of Developmental Services

CAPTAIN Summits  
[by invitation only]

North: October 15-16, 2015  
South: November 9-10, 2015



Use these Quick Links on the CAPTAIN website to access these **FREE** EBP resources!

# 2 IMPORTANT ASD EBP RESOURCES

**National Clearinghouse on Autism Evidence and Practice (NCAEP)**

**National Autism Center (NAC)**

1. 28 Evidence Based Practices
2. AFIRM
3. CSESA
4. EBPs for Young Children

1. National Standards Project Report-Phase 2  
NSP2

**Now let's talk  
about the NAC  
review!**

**Released  
April 2020**

**Released  
April 2015**

<https://ncaep.fpg.unc.edu/>  
<http://afirm.fpg.unc.edu>  
<http://csesa.fpg.unc.edu>  
<http://asdtoddler.fpg.unc.edu>  
[www.captain.ca.gov](http://www.captain.ca.gov)

[www.nationalautismcenter.org](http://www.nationalautismcenter.org)  
[www.captain.ca.gov](http://www.captain.ca.gov)



Released April 2, 2015



National Standards Project, Phase 2  
Now Available! Click Here



- Based on research conducted in the field from 2007 to February 2012
- Provides an update to the previously published summary of empirical treatment literature (2009)
- 351 articles (ages 0-22) and 27 articles (ages 22+) included studies if the interventions could be implemented in or by school systems, early intervention, home, hospital, vocational. and/or community-based programs or in clinic settings

[www.nationalautismcenter.org](http://www.nationalautismcenter.org)

# Strength of Evidence Classification System

## **Established:**

Sufficient evidence is available to confidently determine that an intervention produces favorable outcomes for individuals on the autism spectrum. That is, these interventions are established as effective.

## **Emerging:**

Although one or more studies suggest that an intervention produces favorable outcomes for individuals with ASD, additional high quality studies must consistently show this outcome before we can draw firm conclusions about intervention effectiveness.

## **Unestablished:**

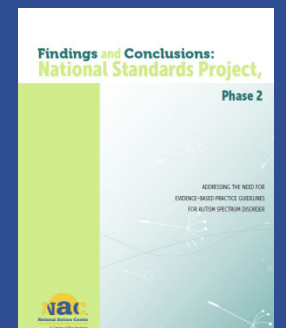
There is little or no evidence to allow us to draw firm conclusions about intervention effectiveness with individuals with ASD. Additional research may show the intervention to be effective, ineffective, or harmful.

# The National Standards Project-Phase 2 (NSP2)



Overall Findings for Individuals Under Age 22

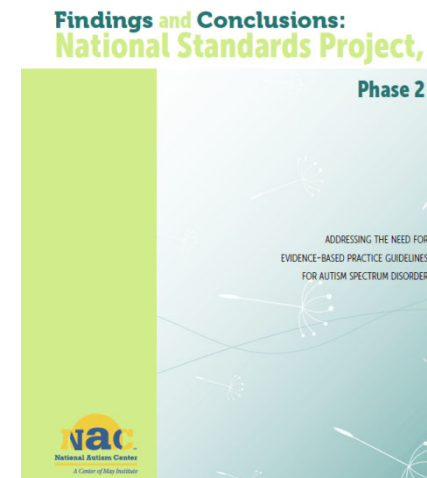
- 14 Established Interventions
- 18 Emerging Interventions
- 13 Unestablished Interventions



The following interventions have been identified as falling into the Established level of evidence:

- Behavioral Interventions
- Cognitive Behavioral Intervention Package
- Comprehensive Behavioral Treatment for Young Children
- Language Training (Production)
- Modeling
- Natural Teaching Strategies
- Parent Training
- Peer Training Package
- Pivotal Response Training
- Schedules
- Scripting
- Self-Management
- Social Skills Package
- Story-based Intervention

**14 ESTABLISHED  
INTERVENTIONS  
(for individuals under age 22)**



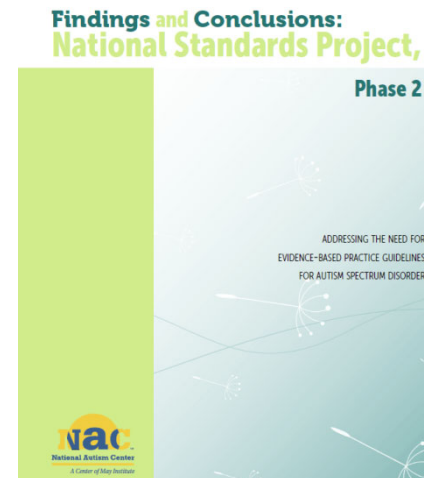
Emerging Interventions are those for which one or more studies suggest they may produce favorable outcomes. However, before we can be fully confident that the interventions are effective, additional high quality studies are needed that consistently show these interventions to be effective for individuals with ASD. Based on the available evidence, we are not yet in a position to rule out the possibility that Emerging Interventions are, in fact, not effective.

A large number of studies fall into the Emerging level of evidence. We believe scientists should find fertile ground for further research in these areas.

The following interventions have been identified as falling into the Emerging level of evidence:

- Augmentative and Alternative Communication Devices
- Developmental Relationship-based Treatment
- Exercise
- Exposure Package
- Functional Communication Training
- Imitation-based Intervention
- Initiation Training
- Language Training (Production & Understanding)
- Massage Therapy
- Multi-component Package
- Music Therapy
- Picture Exchange Communication System
- Reductive Package
- Sign Instruction
- Social Communication Intervention
- Structured Teaching
- Technology-based Intervention
- Theory of Mind Training

## 18 EMERGING INTERVENTIONS (for individuals under age 22)



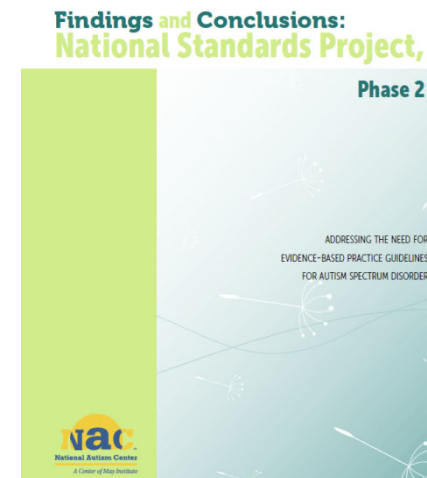


Unestablished Interventions are those for which there is little or no evidence in the scientific literature that allows us to draw firm conclusions about their effectiveness with individuals with ASD. There is no reason to assume these interventions are effective. Further, there is no way to rule out the possibility these interventions are ineffective or harmful.

**The following interventions have been identified as falling into the Unestablished level of evidence:**

- Animal-assisted Therapy
- Auditory Integration Training
- Concept Mapping
- DIR/Floor Time
- Facilitated Communication
- Gluten-free/Casein-free diet
- Movement-based Intervention
- SENSE Theatre Intervention
- Sensory Intervention Package
- Shock Therapy
- Social Behavioral Learning Strategy
- Social Cognition Intervention
- Social Thinking Intervention

## **13 UNESTABLISHED INTERVENTIONS (for individuals under age 22)**



## Research Findings for Adults (22+ Years)

### Established Interventions for Adults

**Only 1 Established  
for individuals 22+**

The only intervention to be identified as Established for individuals ages 22 years and older is Behavioral Interventions. The Behavioral Intervention category consists of applied behavior analytic interventions to increase adaptive behaviors and decrease challenging behaviors. Examples of specific strategies identified in the 17 articles supporting Behavioral Interventions are provided in the table on the following page.

### Emerging Interventions for Adults

Emerging Interventions are those for which one or more studies suggest they may produce favorable outcomes. However, before we can be fully confident that the interventions are effective, additional high quality studies are needed that consistently show these interventions to be effective for individuals with ASD. Based on the available evidence, we are not yet in a position to rule out the possibility that Emerging Interventions are, in fact, not effective.

The following intervention has been identified as falling into the Emerging level of evidence:

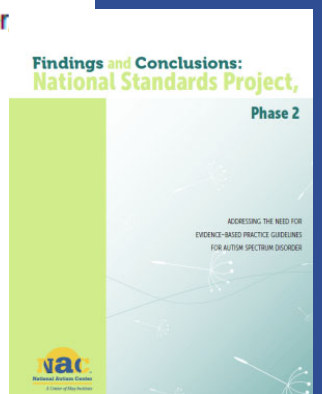
- Vocational Training Package

### Unestablished Interventions for Adults

Unestablished Interventions are those for which there is little or no evidence in the scientific literature that allows us to draw firm conclusions about their effectiveness with individuals with ASD. There is no reason to assume these interventions are effective. Further there is no way to rule out the possibility these interventions are ineffective or harmful.

The following interventions have been identified as falling into the Unestablished level of evidence:

- Cognitive Behavioral Intervention Package
- Modeling
- Music Therapy
- Sensory Integration Package



# NSP2

## Example of EBP

### Modeling

#### Established Intervention



One of the most effective ways to teach someone what to do is to show him or her how to do it. The goal of modeling is to correctly demonstrate a target behavior to the person learning the new skill, so that person can then imitate the model. Children can learn a great deal from observing the behavior of parents, siblings, peers, and teachers, but they often need to be taught what behaviors should be imitated.

#### Basic Facts



Number of articles reviewed:

NSP1 = 51 NSP2 = 28

Effective ages: Children and adolescents 3-18 years

Skills increased:

- higher cognitive functions (NSP1)
- academic (NSP2)
- communication, interpersonal, personal responsibility, and play (NSP1&2)

Behaviors decreased:

- problem behaviors (NSP1)
- sensory or emotional regulation (NSP1)

#### Detailed Description



There are two types of modeling—live and video modeling.

Live modeling occurs when a person demonstrates the target behavior in the presence of the child with autism spectrum disorder (ASD). When providing live modeling:

- Clearly outline, in writing, the target behavior to model.
- Ensure all individuals modeling the target behavior are doing so in a consistent manner. It may be helpful for parents/caregivers/therapists to practice together to make certain each person provides the same model.
- Obtain the child's attention prior to modeling the target behavior.
- Develop a plan to fade or stop the use of modeling to encourage the child to independently display the target behavior.

Video modeling occurs when you pre-record a person demonstrating the target behavior. Video modeling can be a great option for children/adolescents with an affinity for television shows, movies, or interest in seeing themselves on a monitor (i.e., television screen, computer monitor, video recorder monitor). Some children/adolescents may enjoy assisting in the production of the video.

## NSP2

# Recommendations For Intervention Selection

### ESTABLISHED INTERVENTIONS

“have sufficient evidence of effectiveness”

“We recommend the decision-making team give serious consideration to these interventions because:

- these interventions have produced beneficial effects for individuals involved in the research studies published in the scientific literature
- access to interventions that work can be expected to produce more positive long-term outcomes
- there is no evidence of harmful effects

**However, it should not be assumed that these interventions will universally produce favorable outcomes for all individuals with ASD”**

## NSP2

# Recommendations For Intervention Selection

### EMERGING INTERVENTIONS

**“We generally do not recommend beginning with these interventions**

However, Emerging Interventions should be considered promising and warrant serious consideration if Established Interventions are deemed inappropriate by the decision-making team, or were unsuccessful in producing positive outcomes”

## NSP2

# Recommendations For Intervention Selection

## UNESTABLISHED INTERVENTIONS

“**Unestablished Interventions either have no research support** or the research that has been conducted does not allow us to draw firm conclusions about intervention effectiveness for individuals with ASD.

When this is the case, decision-makers simply do not know if this intervention is effective, ineffective, or harmful because researchers have not conducted any or enough high-quality research.

Given how little is known about these interventions, **we would recommend considering these interventions only after additional research has been conducted** and this research reveals favorable outcomes for individuals with ASD.”

# HOW DO THESE TWO REVIEWS COMPARE?

**\*NCAEP (2020) AND NSP (2015)\***

**“There continues to be a substantial overlap in EBPs identified by these two independent reviews.”**

**-Page 48 of the NCAEP Report**



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# Overlap Chart Between Evidence Based Practices Identified by NCAEP and NSP

Evidence-Based Practices Identified (NCAEP)	Established Interventions Identified by NSP												Comprehensive Behavioral Treatment for Young Children		
	Behavioral Interventions	Cognitive Behavioral Intervention Package	Modeling	Naturalistic Teaching Strategies	Parent Training	Peer Training Package	Pivotal Response Treatment*	Schedules	Scripting	Self-management	Social Skills Package	Story-based Intervention		Language Training (Production)	
Antecedent-Based Intervention (ABI)	✓													Language training did not emerge as a focused intervention by the NCAEP. Components of Language Training (Production) overlap with NCAEP identified practices that may support language production, such as modeling, prompting, reinforcement, visual supports, and music-mediated interventions.	The NCAEP did not review comprehensive treatment models. Components of the Comprehensive Behavioral Treatment of Young Children may overlap with many NCAEP identified practices, such as discrete trial training, modeling, prompting, time delay, and behavior momentum intervention.
Cognitive Behavioral Instructional Strategies (CBIS)		✓													
Differential Reinforcement (DR)	✓														
Discrete Trial Training (DTT)	✓														
Extinction (EXT)	✓														
Modeling (MD)	✓		✓												
Naturalistic Interventions (NI)				✓		✓									
Parent-Implemented Interventions (PII)					✓										
Peer-Based Instruction & Intervention (PBII)						✓									
Prompting (PP)	✓								✓						
Reinforcement (R)	✓														
Response Interruption & Redirection (RIR)	✓														
Self-Management (SM)									✓						
Social Narratives (SN)											✓				
Social Skills Training (SST)										✓					
Task Analysis (TA)	✓														
Time Delay (TD)	✓														
Video Modeling (VM)	✓		✓												
Visual Supports (VS)	✓							✓	✓						
Augmentative & Alternative Communication (AAC)	Identified as an emerging intervention by the NSP.														
Exercise & Movement (EXM)	Identified as an emerging intervention by the NSP.														
Functional Communication Training (FCT)	Identified as an emerging intervention by the NSP.														
Music-Mediated Interventions (MMI)	Identified as an emerging intervention by the NSP.														
Technology-aided Instruction & Intervention (TAII)	Identified as an emerging intervention by the NSP.														
Behavior Momentum Intervention (BMI)	The NSP did not consider this as a category for intervention.														
Direct Instruction (DI)	The NSP did not consider this as a category for intervention.														
Functional Behavior Assessment (FBA)	The NSP did not consider this as a category for intervention.														
Sensory Integration® (SI)	The NSP did not consider this as a category for intervention.														

Table 4.3 Page 49 of the NCAEP Report



# CAPTAIN Recommends

- Use 28 EBPs from NCAEP
- Use 14 Established Interventions for Ages 0-22 from NAC
- Use 1 Established Intervention for Ages 22+ from NAC



[www.captain.ca.gov](http://www.captain.ca.gov)



# 2 IMPORTANT ASD EBP RESOURCES

## National Clearinghouse on Autism Evidence and Practice (NCAEP)

1. 28 Evidence Based Practices
2. AFIRM
3. CSESA
4. EBPs for Young Children

**Released  
April 2020**

<https://ncaep.fpg.unc.edu/>  
<http://afirm.fpg.unc.edu>  
<http://csesa.fpg.unc.edu>  
<http://asdtoddler.fpg.unc.edu>  
[www.captain.ca.gov](http://www.captain.ca.gov)

## National Autism Center (NAC)

1. National Standards Project Report-Phase 2  
NSP2

**Released  
April 2015**

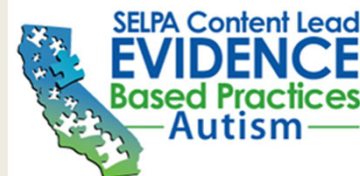
[www.nationalautismcenter.org](http://www.nationalautismcenter.org)  
[www.captain.ca.gov](http://www.captain.ca.gov)



# Why are these two EBP resources so important?



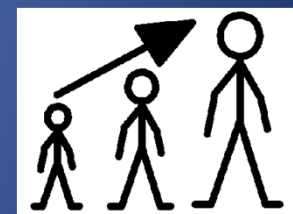
[www.captain.ca.gov](http://www.captain.ca.gov)





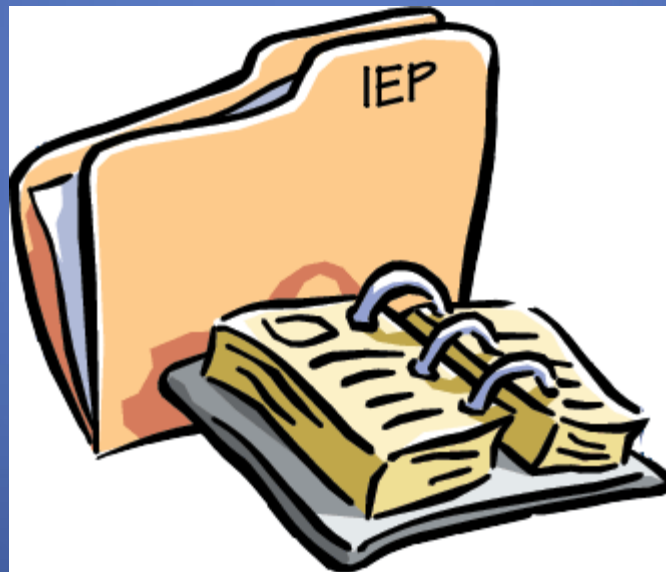
## Knowing of these EBPs:

- helps us know which treatments have evidence of effectiveness and which treatments do not
- allows us to make informed decisions when we select treatments
- provides us with the opportunity to support individuals with ASD in reaching their full potential



# Implementing EBPs goes right along with.....

## The Individuals with Disabilities Education Act (IDEA)



## IDEA 2004 \* Sec. 300.320

### Definition of Individualized Education Program.....

,,,,(4) A statement of the special education and related services and supplementary aids and services, **based on peer-reviewed research** to the extent practicable, to be provided to the child, or on behalf of the child, and a statement of the program modifications or supports for school personnel that will be provided to enable the child--

- (i) To advance appropriately toward attaining the annual goals;
- (ii) To be involved in and make progress in the general education curriculum in accordance with paragraph (a)(1) of this section, and to participate in extracurricular and other nonacademic activities; and
- (iii) To be educated and participate with other children with disabilities and nondisabled children in the activities described in this section;.....

# IDEA 2004

## Part C: Infants and Toddlers with Disabilities

### SEC. 635. REQUIREMENTS FOR STATEWIDE SYSTEM

(a) In General.--A statewide system described in section 633 shall include, at a minimum, the following components:

(2) A State policy that is in effect and that ensures that appropriate **early intervention services based on scientifically based research**, to the extent practicable, are available to all infants and toddlers with disabilities and their families, including Indian infants and toddlers with disabilities and their families residing on a reservation geographically located in the State and infants and toddlers with disabilities who are homeless children and their families.

### SEC. 636. INDIVIDUALIZED FAMILY SERVICE PLAN

(d) Content of Plan.--The individualized family service plan shall be in writing and contain--

(4) a statement of specific **early intervention services based on peer-reviewed research**, to the extent practicable, necessary to meet the unique needs of the infant or toddler and the family, including the frequency, intensity, and method of delivering services;

# Every Student Succeeds Act (ESSA) S.1177-290

## (21) **EVIDENCE-BASED.—**

(A) IN GENERAL.—Except as provided in subparagraph (B), the term ‘**evidence-based**’, when used with respect to a State, local educational agency, or school activity, **means an activity, strategy, or intervention that—**

(i) **demonstrates a statistically significant effect on improving student outcomes or other relevant outcomes based on—**

I) **strong evidence** from at least 1 well designed and well-implemented experimental study;

II) **moderate evidence** from at least 1 well designed and well-implemented quasi-experimental study; or

(III) **promising evidence** from at least 1 well designed and well-implemented correlational study with statistical controls for selection bias; or

(ii)(I) demonstrates a rationale **based on high quality research findings** or positive evaluation that such activity, strategy, or intervention is likely to improve student outcomes or other relevant outcomes; and

(II) includes ongoing efforts to examine the effects of such activity, strategy, or intervention.



# Definition of Evidence-based in ESSA

EVIDENCE-BASED.— (A) IN GENERAL.—Except as provided in subparagraph (B), the term ‘evidence-based’, when used with respect to a State, local educational agency, or school activity, means an activity, strategy, or intervention that—

(i) demonstrates a statistically significant effect on improving student outcomes or other relevant outcomes based on—

(I) strong evidence from at least 1 well-designed and well-implemented experimental study;

(II) moderate evidence from at least 1 well-designed and well-implemented quasi-experimental study; or

(III) promising evidence from at least 1 well-designed and well-implemented correlational study with statistical controls for selection bias; or

(ii)(I) demonstrates a rationale based on high-quality research findings or positive evaluation that such activity, strategy, or intervention is likely to improve student outcomes or other relevant outcomes; and

(II) includes ongoing efforts to examine the effects of such activity, strategy, or intervention.

(B) DEFINITION FOR SPECIFIC ACTIVITIES FUNDED UNDER THIS ACT.—When used with respect to interventions or improvement activities or strategies funded under section 1003, the term ‘evidence-based’ means a State, local educational agency, or school activity, strategy, or intervention that meets the requirements of subclause (I), (II), or (III) of subparagraph (A)(i).

# CA ED CODE 56345

- (4) A statement of the special education and related services and supplementary aids and services, based on **peer-reviewed research** to the extent practicable, to be provided to the pupil, or on behalf of the pupil, and a statement of the program modifications or supports for school personnel that will be provided to enable the pupil to do the following:
- (A) To advance appropriately toward attaining the annual goals.
  - (B) To be involved in and make progress in the general education curriculum in accordance with paragraph (1) and to participate in extracurricular and other nonacademic activities.
  - (C) To be educated and participate with other individuals with exceptional needs and nondisabled pupils in the activities described in this subdivision.

# Implementing EBPs goes right along with CA Senate Bill 946

Health and Safety Code Section 1374.73 (4)(c)(1)  
Insurance Code Section 10144.51 (4)(c)(1)

"Behavioral health treatment" means professional services and treatment programs, including applied behavior analysis and **evidence-based** behavior intervention programs, that develop or restore, to the maximum extent practicable, the functioning of an individual with pervasive developmental disorder or autism and that meet all of the following criteria..."

# Implementing EBPs goes right along with the CA Lanterman Act

“4686.2. (b) Effective July 1, 2009, notwithstanding any other provision of law or regulation to the contrary, regional centers shall:

(1) Only purchase ABA services or intensive behavioral intervention services that reflect **evidence-based practices**, promote positive social behaviors, and ameliorate behaviors that interfere with learning and social interactions...”

# Implementing EBPs goes right along with CA Lanterman Act...

“4686.2. (d) (3) "**Evidence-based practice**" means a decision making process that integrates the best available scientifically rigorous research, clinical expertise, and individual's characteristics. **Evidence-based practice** is an approach to treatment rather than a specific treatment. **Evidence-based practice** promotes the collection, interpretation, integration, and continuous evaluation of valid, important, and applicable individual- or family-reported, clinically-observed, and **research-supported evidence**. The best available **evidence**, matched to consumer circumstances and preferences, is applied to ensure the quality of clinical judgments and facilitates the most cost-effective care. “

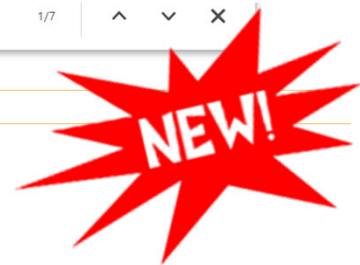


BILL TEXT

PDF Version: 10/02/19 - Chapters Go

AB-1172 Special education: nonpublic, nonsectarian schools or agencies. (2019-2020)

SHARE THIS:



Date Published: 10/02/2019 09:00 PM

Assembly Bill No. 1172

CHAPTER 454

**NPS and NPA now required to have training in use of EBPs**

An act to amend Sections 51225.2, 56365, 56366.1, 56366.4, and 56366.10 of the Education Code relating to special education.

(4) (A) (i) Commencing with the 2020–21 school year, documentation that the nonpublic, nonsectarian school or agency will train staff who will have contact or interaction with pupils during the schoolday in the use of evidence-based practices and interventions specific to the unique behavioral needs of the nonpublic, nonsectarian school or agency’s pupil population. The training shall be provided within 30 days of employment to new staff who have any contact or interaction with pupils during the schoolday, and annually to all staff who have any contact or interaction with pupils during the schoolday.

(ii) For a nonpublic, nonsectarian school or agency that was in existence as of the January 1 immediately preceding a school year, documentation that the nonpublic, nonsectarian school or agency’s staff members who will have contact or interaction with pupils during the schoolday have received training that complies with the requirements of subparagraphs (B) and (C).

[https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill\\_id=201920200AB1172](https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201920200AB1172)

# Even ASHA!

## (American Speech Language Hearing Association)



AMERICAN  
SPEECH-LANGUAGE-  
HEARING  
ASSOCIATION

CAREERS | CERTIFICATION PUBLICATIONS EVENTS | ADVOCACY | CONTINUING EDUCATION

### Position Statement

## Evidence-Based Practice in Communication Disorders

Joint Coordinating Committee on Evidence-Based Practice

### About this Document

This position statement was developed by the American Speech-Language-Hearing Association (ASHA) Joint Coordinating Committee on Evidence-Based Practice. Members of the committee included Randall R. Robey (chair); Kenn Apel; Christine A. Dollaghan; Wendy Ellmo; Nancy E. Hall; Thomas M. Helfer; Mary Pat Moeller; Travis T. Threats; Celia R. Hooper, 2003–2005 vice president for professional practices in speech-language pathology; Raymond D. Kent, 2004–2006 vice president for research and technology; Janet Brown (ex officio); and Brenda L. Lonsbury-Martin (ASHA staff consultant).

This position statement is an official policy document of the American Speech-Language-Hearing Association (ASHA).

It is the position of the American Speech-Language-Hearing Association that audiologists and speech-language pathologists incorporate the principles of evidence-based practice in clinical decision making to provide high quality clinical care. The term *evidence-based practice* refers to an approach in which current, high-quality research evidence is integrated with practitioner expertise and client preferences and values into the process of making clinical decisions.

# What is the most important reason to use EBPs?



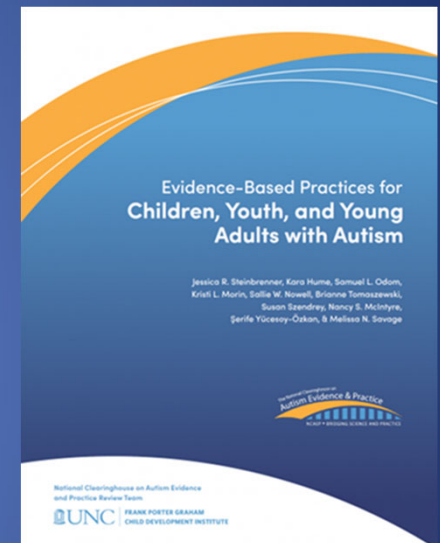
Because they work!!!! 😊



# How do we get EBPs implemented by everyone?

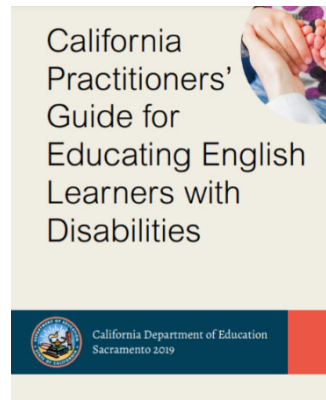
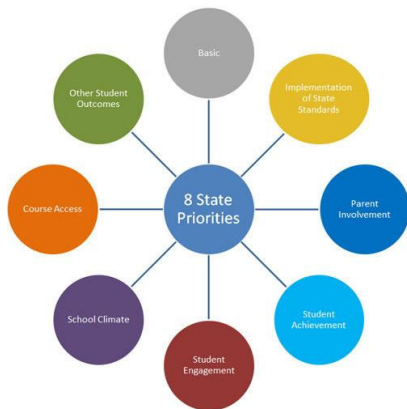
“Some practitioners will be able to take the translated information about EBPs and directly apply it in their classrooms, **but *Implementation Science informs us that additional steps are needed for most practitioners.***”

***Professional development, such as coaching, and organizational support are all factors that may be necessary for closing the last link of the research to practice gap.”***



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# California education has a lot going on and.... CAPTAIN aligns with these initiatives!

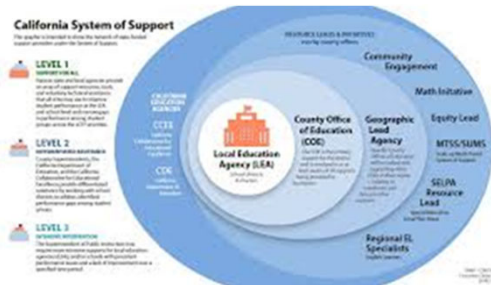
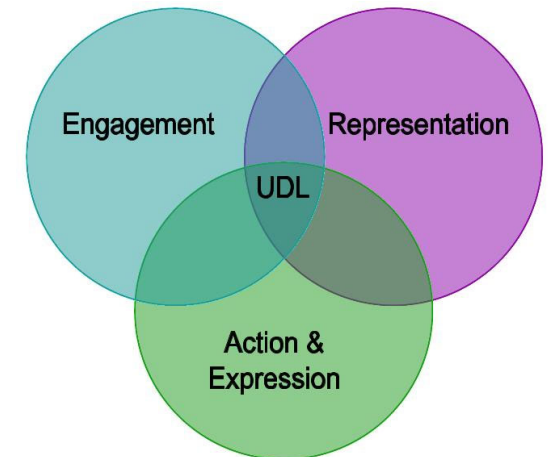


# ESSA

Every Student Succeeds Act



Every Student Succeeds Act (ESSA)



# INTEGRATING EBPs WITH INITIATIVES IS NOT ONE MORE THING! 😊

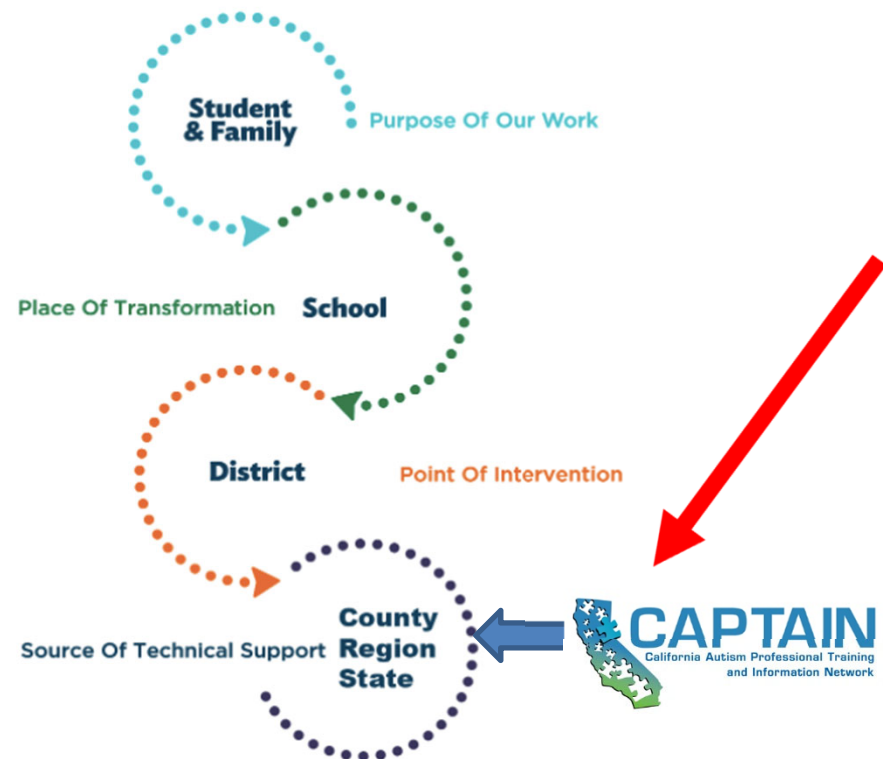


# CAPTAIN Aligns with MTSS

California's Multi-Tiered System of Support is an integrated, comprehensive framework that aligns academic, behavioral, and social-emotional learning in a fully integrated system of support for the benefit of all students.



## System of Engagement



# EBPs Align with MTSS

[www.captain.ca.gov](http://www.captain.ca.gov)

# INFOGRAPHIC ON CAPTAIN WEBSITE

**CAPTAIN**  
California Autism Professional Training and Information Network

## Autism & Multi-Tiered System of Support (MTSS)

MTSS: A continuum of evidence-based system-wide practices of data-based decision making used to meet the academic, behavior and social-emotional needs of all students.

---

### MTSS: ALL MEANS ALL INCLUDING STUDENTS WITH AUTISM

**MTSS**

ACADEMIC | SOCIAL-EMOTIONAL | BEHAVIORAL

WHOLE CHILD

- Strong and Engaged Leadership
- Evidence-Based Practices
- Data-Based Problem Solving and Decision Making
- Layered Continuum of Supports
- Student, Family, School and Community Engagement

Leadership Training Available to Support Organizational Change for Implementation

Researched Evidence-Based Practices Available for Autism

Implementation Checklists for Evidence-Based Practices Available for Autism

Universal, Supplemental, & Intensive, Supports Available for Autism

Parent-Implemented Interventions Available for Autism

Information about EBPs for ASD: [captain.ca.gov](http://captain.ca.gov)  
Information about MTSS: [cde.ca.gov/ci/cr/ri](http://cde.ca.gov/ci/cr/ri)

# Implementing EBPs Aligns With CCSS Instruction and UDL



The principles of **Universal Design for Learning (UDL)** provide a framework for educators to use:

- **multiple ways to teach the content**
- **multiple ways for students to demonstrate knowledge**
- **multiple ways to engage ALL learners**

## EBPs Align with UDL

## INFOGRAPHIC ON CAPTAIN WEBSITE

### Using Universal Design for Learning (UDL) Guidelines & Evidence Based Practices for Autism

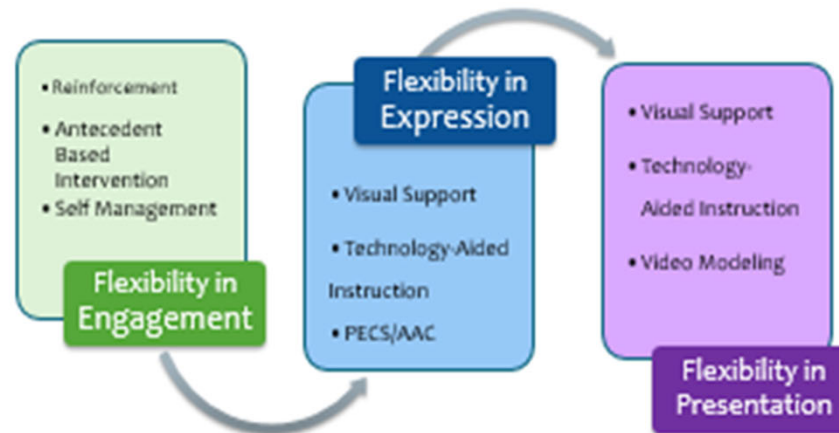


#### Why?



- There are 104,573 students with ASD in CA Public Schools and that number is steadily growing (CDE, 2017)
- More than half of students with ASD have cognition in the average range (CDC, 2016)
- Students with ASD can be supported in accessing the General Education Curriculum and the CA State Standards with the use of Universal Design for Learning (UDL) and Evidence Based Practices (EBPs) for Autism

#### EBPs for ASD in the UDL Guidelines:



To learn more about the EBPs for Autism visit: [www.captain.ca.gov](http://www.captain.ca.gov)  
or participate in the free online learning modules at: <http://afirm.fpg.unc.edu>  
Find resources and learn more about UDL through CAST: <http://www.cast.org>



[www.captain.ca.gov](http://www.captain.ca.gov)

# EBPs Align with PBIS

## (Evidence Based Practices for Behavior)

## INFOGRAPHIC ON CAPTAIN WEBSITE

[www.captain.ca.gov](http://www.captain.ca.gov)

EBPs for Behavior*	EBPs for ASD*
Effectively design the physical environment of the classroom; maximize structure in classroom.	<ul style="list-style-type: none"> <li>✓ Antecedent Based Interventions</li> <li>✓ Visual Supports</li> </ul>
Develop and teach predictable classroom routines Post, teach, review, monitor, and reinforce a small number of positively stated expectations.	<ul style="list-style-type: none"> <li>✓ Visual Supports</li> <li>✓ Task Analysis</li> <li>✓ Reinforcement</li> </ul>
Use active supervision and proximity. Prompt or remind students of expected behavior	<ul style="list-style-type: none"> <li>✓ Antecedent Based Interventions</li> <li>✓ Prompting</li> </ul>
Establish a continuum of strategies to acknowledge appropriate behavior.	<ul style="list-style-type: none"> <li>✓ Reinforcement</li> </ul>
Make the problem behavior irrelevant with anticipation and reminders.	<ul style="list-style-type: none"> <li>✓ Antecedent Based Interventions</li> <li>✓ Self-Management</li> <li>✓ Exercise</li> <li>✓ Cognitive Behavior Intervention</li> </ul>
Establish a continuum of strategies to respond to inappropriate behavior.	<ul style="list-style-type: none"> <li>✓ Differential Reinforcement of Alternative, Incompatible or Other Behavior</li> <li>✓ Response Interruption/Redirection</li> <li>✓ Extinction</li> </ul>
Help student learn appropriate behaviors	<ul style="list-style-type: none"> <li>✓ Social Skills Training</li> <li>✓ Structured Play Group</li> <li>✓ Functional Communication Training</li> <li>✓ Discrete Trial Training</li> <li>✓ Modeling</li> <li>✓ PECS</li> <li>✓ Pivotal Response Training</li> <li>✓ Scripting</li> <li>✓ Social Narratives</li> <li>✓ Video Modeling</li> <li>✓ Parent-Implemented Intervention</li> </ul>
Determine the function of the behavior to select a FERB (Functional Equivalent Replacement Behavior)	<ul style="list-style-type: none"> <li>✓ Functional Behavior Assessment</li> <li>✓ Functional Communication Training</li> </ul>
Expectations and behavioral skills are taught and recognized in the natural context	<ul style="list-style-type: none"> <li>✓ Naturalistic Instruction</li> <li>✓ Pivotal Response Training</li> </ul>
Provide a range of evidence based practices that promote active engagement in the classroom	<ul style="list-style-type: none"> <li>✓ Technology-Aided Instruction and Intervention</li> <li>✓ Peer-Mediated Instruction and Intervention</li> <li>✓ Antecedent Based Interventions (e.g., Special Interests)</li> </ul>
<div style="display: flex; justify-content: space-between; align-items: center;"> <span><a href="http://www.captain.ca.gov">www.captain.ca.gov</a></span> <span>England/Schetter</span> </div>	



# EBPs Align with CEC HLPs



# INFOGRAPHIC ON CAPTAIN WEBSITE

HIGH LEVERAGE PRACTICES (HLP)	EVIDENCE BASED PRACTICES (EBP)-ASD THAT SUPPORT HLP
<b>HLP 3:</b> Collaborate with families to support student learning and secure needed services.	Parent-Implemented Intervention.
<b>HLP 7:</b> Establish a consistent, organized, and respectful learning environment.	Visual Support and Structure, Antecedent Based Intervention, Reinforcement.
<b>HLP 8:</b> Provide positive and constructive feedback to guide students' learning and behavior.	Reinforcement, Differential Reinforcement.
<b>HLP 9:</b> Teach social behaviors.	Social Skills Groups, Social Narratives, Structured Play Groups, Self-Management Training, Scripting.
<b>HLP 10:</b> Conduct functional behavioral assessments to develop individual student behavior support plans.	Functional Behavior Assessment, Functional Communication Training, Antecedent Based Intervention, Reinforcement, Differential Reinforcement.
<b>HLP 11:</b> Identify and prioritize long- and short-term learning goals.	Task Analysis, Goal Attainment Scaling.
<b>HLP 12:</b> Systematically design instruction toward specific learning goal.	Task Analysis, Goal Attainment Scaling.
<b>HLP 13:</b> Adapt curriculum tasks and materials for specific learning goals.	Antecedent Based Intervention, Technology-Aided Instruction and Intervention, Visual Support.
<b>HLP 14:</b> Teach cognitive and metacognitive strategies to support learning and independence.	Self-Management, Visual Support, Cognitive Behavioral Intervention.
<b>HLP 15:</b> Provide scaffolded supports.	Prompting/Prompt Fading, Time Delay, Visual Support, Antecedent Based Intervention.
<b>HLP 16:</b> Use explicit instruction.	Discrete Trial Teaching, Modeling, Video Modeling.
<b>HLP 17:</b> Use flexible grouping.	Peer-Mediated Instruction and Intervention, Antecedent Based Intervention.
<b>HLP 18:</b> Use strategies to promote active student engagement.	Pivotal Response Training, Antecedent Based Intervention, Peer-Mediated Instruction and Intervention, Self-Management, Technology-Aided Instruction and Intervention, Reinforcement.
<b>HLP 19:</b> Use assistive and instructional technologies.	Technology-Aided Instruction and Intervention, Functional Communication Training, Picture Exchange Communication System.
<b>HLP 20:</b> Provide intensive instruction.	Discrete Trial Teaching.
<b>HLP 21:</b> Teach students to maintain and generalize new learning across time and settings.	Naturalistic Intervention, Pivotal Response Training, Differential Reinforcement.
<b>HLP 22:</b> Provide positive and constructive feedback to guide students' learning and behavior.	Reinforcement, Differential Reinforcement.
<b>High Leverage Practices:</b> <a href="https://highleveragepractices.org">https://highleveragepractices.org</a>	<b>EBPs for Autism:</b> <a href="https://afirm.fpg.unc.edu/afirm-modules">https://afirm.fpg.unc.edu/afirm-modules</a>

[www.captain.ca.gov](http://www.captain.ca.gov)

# EBPs Align with Best Practices for Inclusive Education

[www.captain.ca.gov](http://www.captain.ca.gov)

## INFOGRAPHIC ON CAPTAIN WEBSITE

**CAPTAIN**  
California Autism Professional Training and Information Network

**BETTER OUTCOME.**

### SUCCESSFUL INCLUSION FOR STUDENTS WITH AUTISM

#### WHY?

Improved academic, social and vocational outcomes  
Increased social acceptance

#### HOW?

### Use Evidence Based Practices

- VISUAL SUPPORTS** (Image: Bulletin board with photos)
- MODELING** (Image: Two children watching a video)
- PEER-MEDIATED INSTRUCTION & INTERVENTION** (Image: Group of children sitting on the floor)
- REINFORCEMENT** (Image: Worksheet with stars and the text "I am working for..")
- TEAM COLLABORATION** (Image: Group of people around a table with gears)

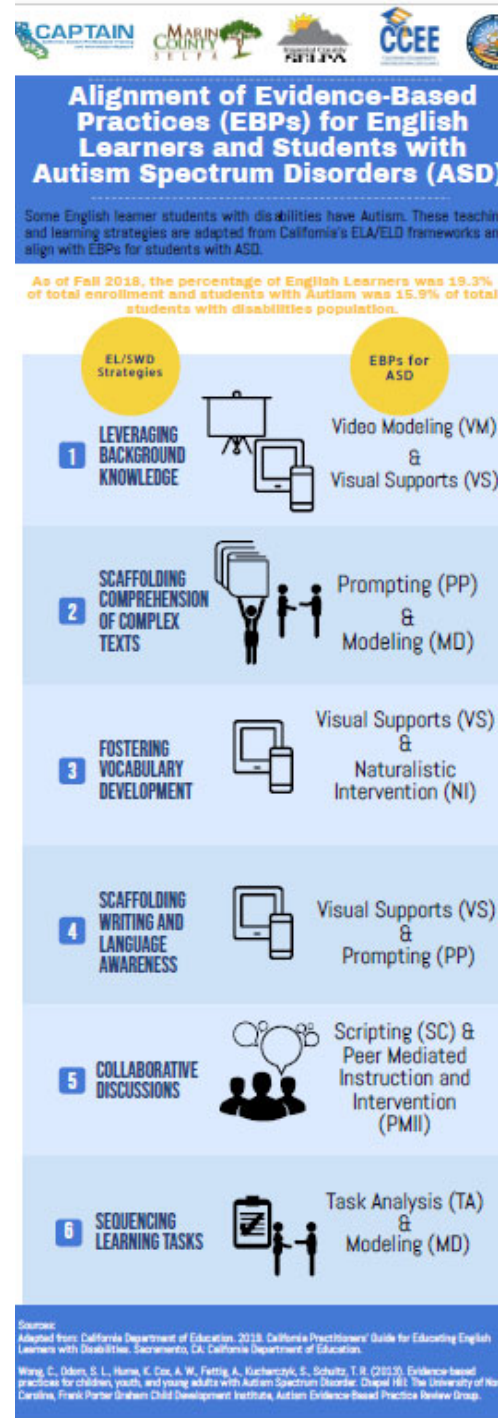
TO LEARN MORE ABOUT SUPPORTING STUDENTS WITH AUTISM

[www.captain.ca.gov](http://www.captain.ca.gov)

# EBPs Align with Best Practices for English Learners with Disabilities

[www.captain.ca.gov](http://www.captain.ca.gov)

## INFOGRAPHIC ON CAPTAIN WEBSITE



# CAPTAIN Recommends

- Use 28 EBPs from NCAEP
- Use 14 Established Interventions for Ages 0-22 from NAC
- Use 1 Established Intervention for Ages 22+ from NAC

# CAPTAIN Website

[www.captain.ca.gov](http://www.captain.ca.gov)

You can easily access all these EBPs,  
NPDC, NCAEP tools and EBP  
Resources through the CAPTAIN  
website!

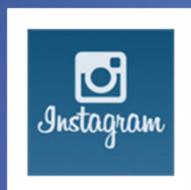


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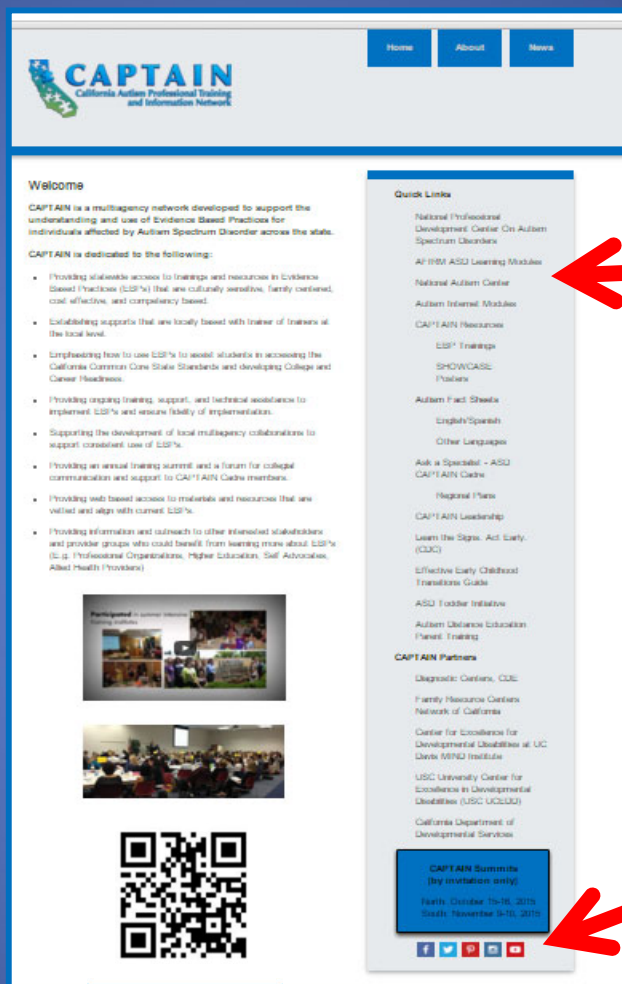
CAPTAIN\_EBPS



@CAPTAIN\_EBPS



CAPTAIN



**CAPTAIN**  
California Autism Professional Training  
and Information Network

Home About News

**Welcome**

CAPTAIN is a multagency network developed to support the understanding and use of Evidence Based Practices for individuals affected by Autism Spectrum Disorder across the state.

CAPTAIN is dedicated to the following:

- Providing statewide access to trainings and resources in Evidence Based Practices (EBPs) that are culturally sensitive, family centered, cost effective, and competency based.
- Establishing supports that are locally based with trainers of trainers at the local level.
- Empowering how to use EBPs to assist students in accessing the California Common Core State Standards and developing College and Career Readiness.
- Providing ongoing training, support, and technical assistance to implement EBPs and ensure fidelity of implementation.
- Supporting the development of local multagency collaborations to support consistent use of EBPs.
- Providing an annual training summit and a forum for collegial communication and support to CAPTAIN Cadre members.
- Providing web based access to materials and resources that are valued and align with current EBPs.
- Providing information and outreach to other interested stakeholders and provider groups who could benefit from learning more about EBPs (e.g., Professional Organizations, Higher Education, Self Advocates, Allied Health Providers).

**Quick Links**

- National Professional Development Center On Autism Spectrum Disorders
- AFIRM ASD Learning Modules
- National Autism Center
- Autism Informal Modules
- CAPTAIN Resources
- EBP Trainings
- SHOWCASE Practices
- Autism Fact Sheets
- English/Spanish
- Other Languages
- Ask a Specialist - ASD CAPTAIN Cadre
- Regional Plans
- CAPTAIN Leadership
- Learn the Signs. Act Early. (CDC)
- Effective Early Childhood Transitions Guide
- ASD Tagger Initiative
- Autism Distance Education Parent Training

**CAPTAIN Partners**

- Diagnostic Centers, CDE
- Family Resource Centers Network of California
- Center for Excellence for Developmental Disabilities at UC Davis MIND Institute
- USC University Center for Excellence in Developmental Disabilities (USC UCEDD)
- California Department of Developmental Services

**CAPTAIN Summits**  
(by invitation only)  
North: October 7-16, 2015  
South: November 9-10, 2015

Facebook Twitter YouTube Instagram

Links to  
ASD  
Resources

CAPTAIN  
Social Media  
Links

# Free ASD Online Course!

← → ↻ coursera.org/learn/autism-spectrum-disorder

coursera Explore What do you want to learn?

Browse > Health > Patient Care

Offered By  
**UC DAVIS**  
UNIVERSITY OF CALIFORNIA

## Autism Spectrum Disorder

★★★★★ 4.6 (957 ratings) | 🏆 96% | 📊 4.71/5

Patricia Schetter

**Enroll for Free**  
Starts Mar 07

Financial aid available

45,340 already enrolled

About Syllabus Reviews Instructors Enrollment Options FAQ

### About this Course

33,257 recent views

Understanding the characteristics of autism spectrum disorder (ASD) and their implications for behavior, learning and the ability to process information is critical for anyone working or interacting with those on the spectrum -- educators, clinicians, counselors, therapists, medical staff, family and employers. This course will give you a fundamental understanding of what ASD is, how it is diagnosed, the primary areas of impairment, and why prevalence is increasing.

[SHOW ALL](#)

SKILLS YOU WILL GAIN

- Education
- Sensory Integration
- Diagnostic Evaluation
- Autism Spectrum Disorder (ASD)

<https://www.coursera.org/learn/autism-spectrum-disorder>



[www.captain.ca.gov](http://www.captain.ca.gov)





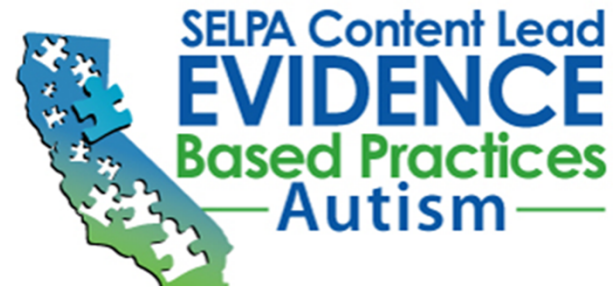
***“Children and families  
cannot benefit from  
evidence-based practices  
that they do not experience.”***

***-Dean Fixsen, NIRN, 2006***



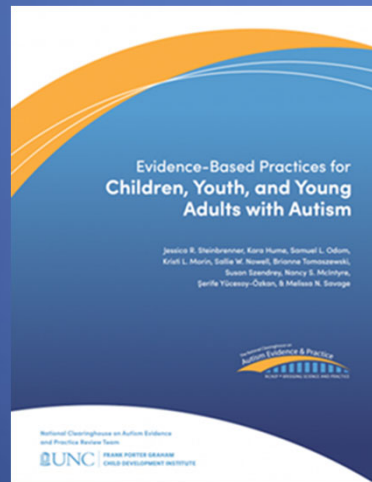
<http://nirn.fpg.unc.edu/>





END

# What are Evidence-Based Practices (EBPs) for ASD?



[www.captain.ca.gov](http://www.captain.ca.gov)

