CAPTAIN

California Autism Professional Training and Information Network

www.captain.ca.gov/handouts.html

Developed by Ann England, M.A., CCC-SLP-L
CAPTAIN Leader
October / November 2015 Summits

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California Autism Professional Training and Information Network

The Americans with Disabilities Act celebrates 25 years of removing barriers and empowering people.

How many children are there with ASD in California schools?

CA Department of Special Education
Special Education Enrollment by Age & Disability

December 2009-2010 Reporting Cycle=59,592

December 2010-2011 Reporting Cycle=65,815

December 2011-2012 Reporting Cycle=71,702 [10.5%]

December 2012-2013 Reporting Cycle=78,624 [11.3%]

December 2013-14 Reporting Cycle=84,713 [12%]

December 2014 Reporting Cycle

90,794 Students

[+6,081 new students identified with ASD in one year!]

[12.6% of Special Education Students in CA]

Source: www.cde.ca.gov/ds

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California Department of Education
Special Education Division
Reporting Cycle: December 1, 2014
Prepared: 10/13/2015 2:48:49 PM

Special Education Enrollment by Age and Disability
Statewide Report

Age	Intellectual Disability (MR)	Hard of Hearing (HH)	Deaf (DEAF)	Speech or Language Impairment (SLI)	Visual Impairment (VI)	Emotional Disturbance (ED)	Orthopedic Impairment (OI)	Other Health Impairment (OHI)	Specific Learning Disability (SLD)	Deaf-Blindness (DB)	Multiple Disability (MD)	Autism (AUT)	Traumatic Brain Injury (TBI)	Total
0	76	376	58	22	34	0	108	247	0	*	43	*	0	
1	165	545	106	231	96	0	198	462	*	*	85	*	*	
2	225	567	123	1,040	131	0	196	630	*	*	131	53	*	
3	934	358	107	11,553	80	*	419	813	44	*	223	4,169	17	
4	1,237	397	161	16,897	119	13	526	990	152	*	262	5,888	32	
5	1,678	409	163	19,560	131	71	559	1,300	645	*	326	6,357	42	
6	2,037	455	168	22,240	196	263	608	2,228	2,727	*	353	6,802	55	
7	2,233	554	198	20,924	209	545	677	3,258	7,175	*	367	6,756	68	
8	2,253	622	214	17,756	255	841	765	4,690	14,321	*	367	6,511	84	
9	2,508	698	192	14,296	231	1,156	713	5,671	20,740	*	321	6,444	89	
10	2,512	694	180	11,067	239	1,345	678	6,421	25,578	*	346	6,380	90	
11	2,607	682	211	7,706	272	1,611	681	6,674	27,849	12	391	6,419	102	
12	2,615	646	200	5,047	266	1,854	705	6,727	28,094	*	336	5,755	113	
13	2,663	593	215	3,668	243	2,098	716	6,750	28,523	*	328	5,464	129	
14	2,688	649	210	2,577	270	2,496	763	6,809	28,772	*	366	5,104	135	
15	2,756	568	212	1,921	247	2,896	736	6,666	27,999	*	343	4,611	139	
16	2,839	595	233	1,564	265	3,277	757	6,417	28,179	*	342	4,366	182	
17	2,758	542	239	1,310	276	3,400	759	6,090	26,567	*	337	4,017	202	
18	2,552	248	146	542	128	1,566	549	2,709	13,225	*	293	2,148	119	
19	2,094	66	69	77	64	483	418	618	2,469	*	310	1,297	58	
20	2,065	34	61	40	54	179	372	259	745	*	276	1,131	39	
21	1,923	22	58	30	51	96	336	171	334	*	234	922	31	
22	332	*	*	*	*	22	54	28	53	0	55	193	*	
														717,961

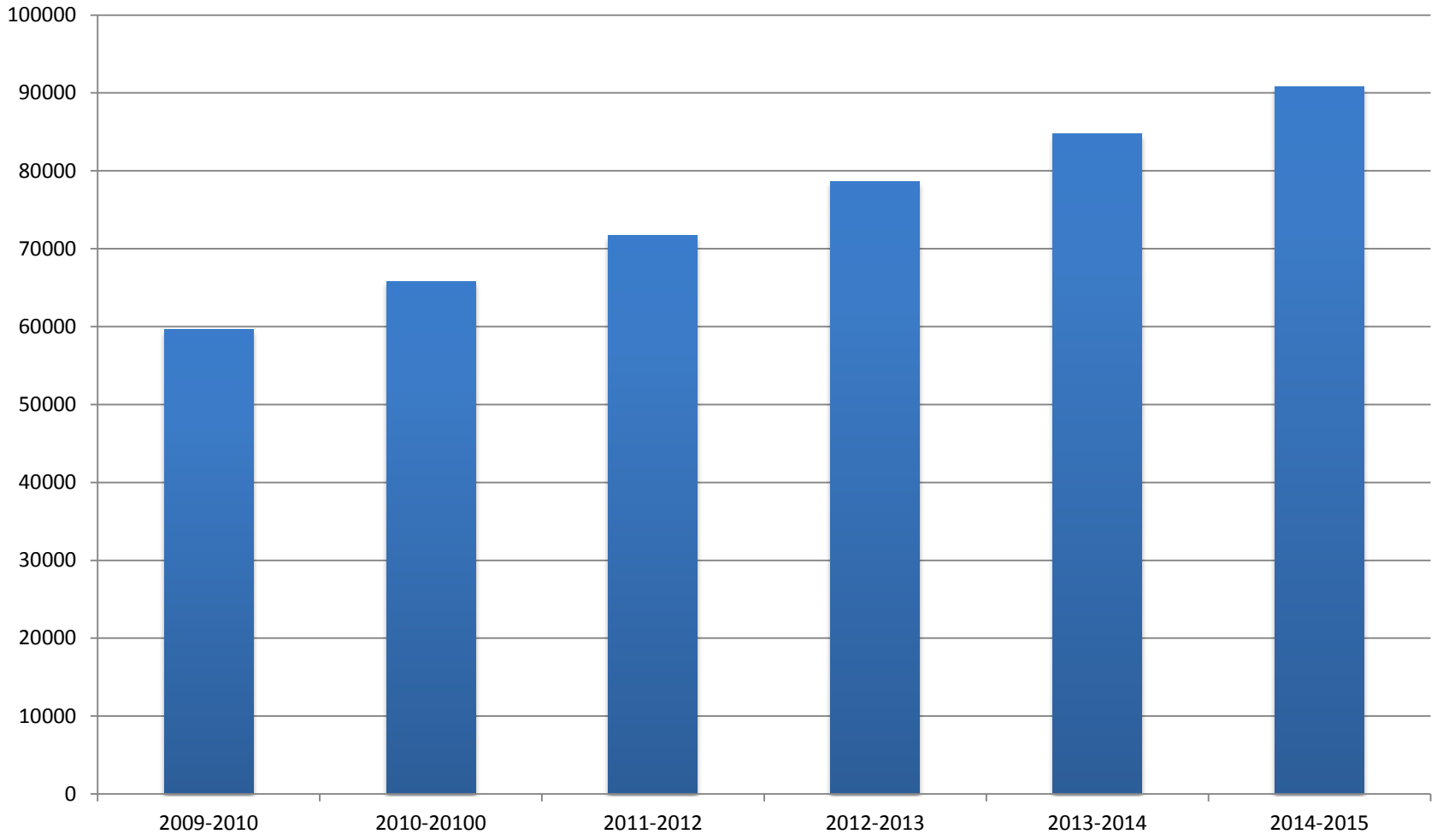
* Denotes values under 11

Autism= 90,794

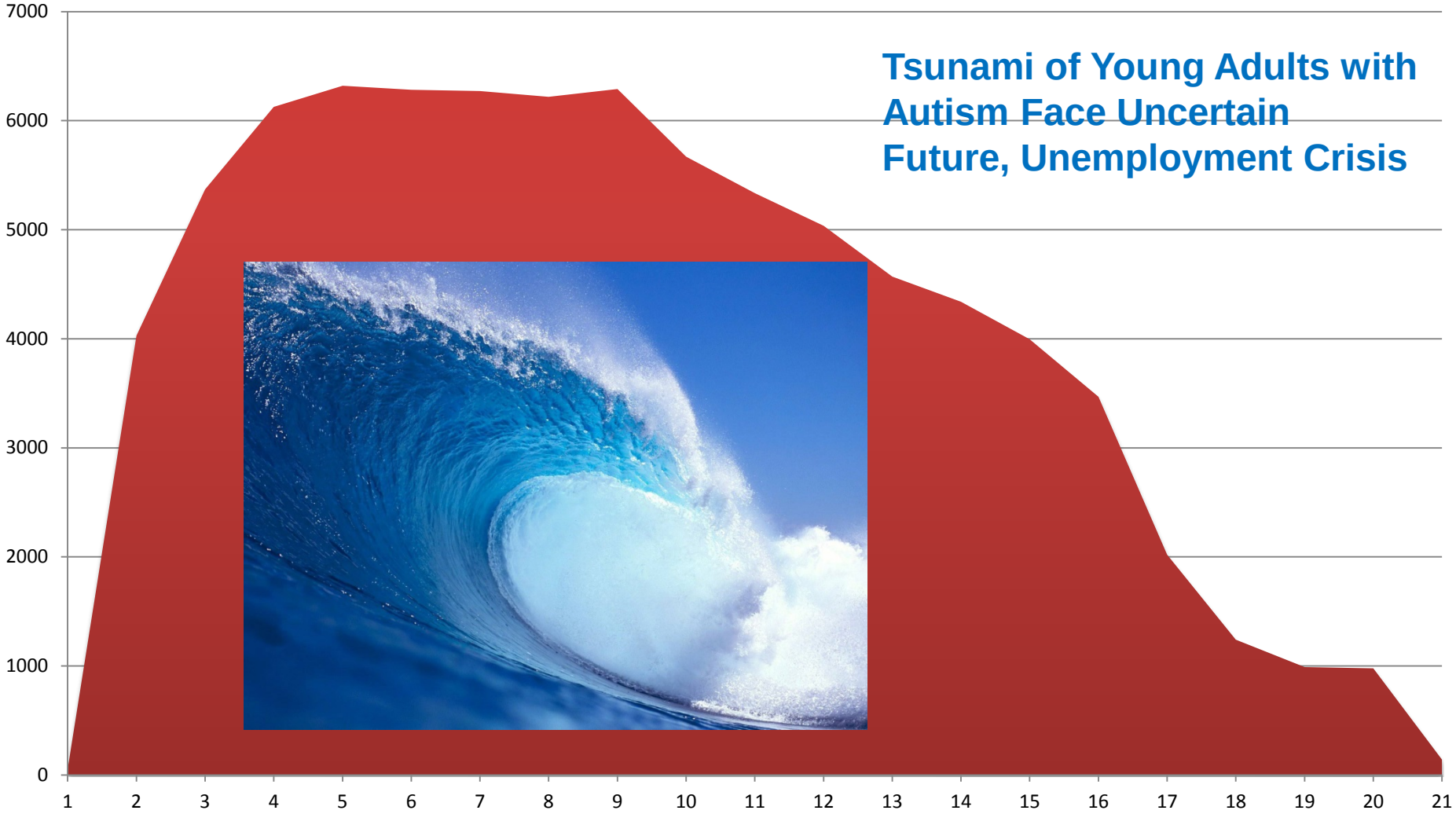
Source:http://data1.cde.ca.gov/dataquest/

Prevalence of ASD in CA Schools

(number of students receiving Special Education Services)



Age Distribution: ASD with IEP (Dec 2013)



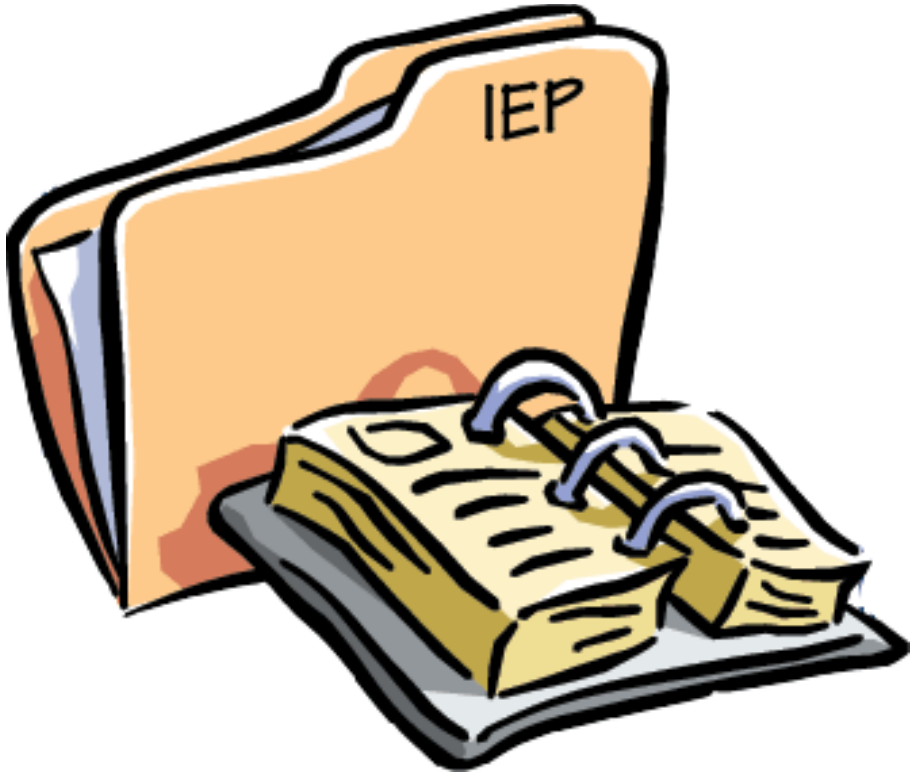
NEWS | July 28, 2015
Autism costs estimated to reach nearly $500 billion, potentially $1 trillion, by 2025

Brief Report: Forecasting the Economic Burden of Autism in 2015 and 2025 in the United States. Leigh JP and Du J.,
Published online: Journal of Autism and Developmental Disorders, 2015 Jul 17

https://www.ucdmc.ucdavis.edu/publish/news/newsroom/10214

http://www.ncbi.nlm.nih.gov/pubmed/26183723

Amendments to State Regulations on Eligibility for Autism Effective July 1, 2014



§ 3030. Eligibility Criteria.
5 CA ADC § 3030
BARCLAYS OFFICIAL CALIFORNIA CODE OF REGULATIONS

‹ Term ›

Barclays Official California Code of Regulations Currentness
Title 5. Education
Division 1. California Department of Education
Chapter 3. Individuals with Exceptional Needs
Subchapter 1. Special Education
Article 3.1. Individuals with Exceptional Needs

As of
July 1, 2014

5 CCR § 3030

§ 3030. Eligibility Criteria.

(a) A child shall qualify as an individual with exceptional needs, pursuant to Education Code section 56026, if the results of the assessment as required by Education Code section 56320 demonstrate that the degree of the child's impairment as described in subdivisions (b)(1) through (b)(13) requires special education in one or more of the program options authorized by Education Code section 56361. The decision as to whether or not the assessment results demonstrate that the degree of the child's impairment requires special education shall be made by the IEP team, including personnel in accordance with Education Code section 56341(b). The IEP team shall take into account all the relevant material which is available on the child. No single score or product of scores shall be used as the sole criterion for the decision of the IEP team as to the child's eligibility for special education.

(b) The disability terms used in defining an individual with exceptional needs are as follows:

(1) Autism means a developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before age three, and adversely affecting a child's educational performance. Other characteristics often associated with autism are engagement in repetitive activities and stereotyped movements, resistance to environmental change or change in daily routines, and unusual responses to sensory experiences.

(A) Autism does not apply if a child's educational performance is adversely affected primarily because the child has an emotional disturbance, as defined in subdivision (b)(4) of this section.

(B) A child who manifests the characteristics of autism after age three could be identified as having autism if the criteria in subdivision (b)(1) of this section are satisfied.

Amendments to State Regulations on Autism Eligibility

The new CA Code of Regulations:

- deletes the term "autistic-like behaviors"
- adds the term "characteristics often associated with autism"

Amendments to State Regulations on Autism Eligibility

The list of "autistic-like behaviors" has been amended to align with federal requirements, but is substantively similar:

- engagement in repetitive activities and stereotyped movements;
- resistance to environmental change or change in daily routines; and
- unusual responses to sensory experiences.

Why the amendments?

CDE recently updated the state's special education regulations to align them with current state laws and federal requirements. In addition to making the regulations current, the amendments may:

- Help to remove confusion among educators when state and federal eligibility requirements for determining whether a student has autism are inconsistent
- Help to ensure that students with autism are appropriately identified, and receive the appropriate services for their needs.

Amendments to State Regulations on Autism Eligibility

California Code of Regulations

5 CCR § 3030. Eligibility Criteria.

Prior to July 1, 2014

3030 (g) A pupil exhibits any combination of the following autistic-like behaviors, to include but not limited to:

(1) An inability to use oral language for appropriate communication.

(2) A history of extreme withdrawal or relating to people inappropriately and continued impairment in social interaction from infancy through early childhood.

(3) An obsession to maintain sameness.

(4) Extreme preoccupation with objects or inappropriate use of objects, or both.

(5) Extreme resistance to controls.

(6) Displays peculiar motoric mannerisms and motility patterns.

(7) Self-stimulating, ritualistic behavior.

July 1, 2014

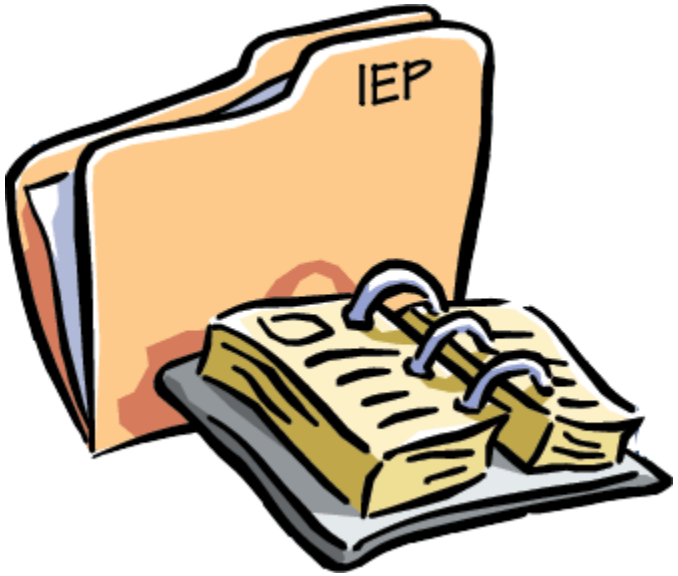
(1) Autism means a developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before age three, and adversely affecting a child's educational performance. Other **characteristics often associated** with autism are engagement in repetitive activities and stereotyped movements, resistance to environmental change or change in daily routines, and unusual responses to sensory experiences.

(A) Autism does not apply if a child's educational performance is adversely affected primarily because the child has an emotional disturbance, as defined in subdivision (b)(4) of this section.

(B) A child who manifests the characteristics of autism after age three could be identified as having autism if the criteria in subdivision (b)(1) of this section are satisfied.

So……

….what guides us in determining eligibility for special education for autism in California public schools?



NOTE: *Education Code* Remains Unchanged

Section 56846.2

(a) For purposes of this chapter, a "pupil with autism" is a pupil who exhibits autistic-like behaviors, including, but not limited to, any of the following behaviors, or any combination thereof:

(1) An inability to use oral language for appropriate communication.

(2) A history of extreme withdrawal or of relating to people inappropriately, and continued impairment in social interaction from infancy through early childhood.

(3) An obsession to maintain sameness.

(4) Extreme preoccupation with objects, inappropriate use of objects, or both.

(5) Extreme resistance to controls.

(6) A display of peculiar motoric mannerisms and motility patterns.

(7) Self-stimulating, ritualistic behavior.

b) The definition of "pupil with autism" in subdivision (a) shall not apply for purposes of the determination of eligibility for services pursuant to the Lanterman Developmental Disabilities Services Act (Division 4.5 (commencing with Section 4500) of the Welfare and Institutions Code).

California Code of Regulations

5 CCR § 3030. Eligibility Criteria.

(07/01/2014)

(1) Autism means a developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before age three, and adversely affecting a child's educational performance. Other characteristics often associated with autism are engagement in repetitive activities and stereotyped movements, resistance to environmental change or change in daily routines, and unusual responses to sensory experiences.

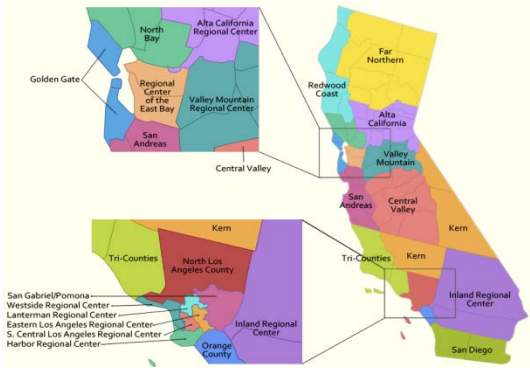
(A) Autism does not apply if a child's educational performance is adversely affected primarily because the child has an emotional disturbance, as defined in subdivision (b)(4) of this section.

(B) A child who manifests the characteristics of autism after age three could be identified as having autism if the criteria in subdivision (b)(1) of this section are satisfied.

Regional Center Updates

Developmental Center Closures

- Sonoma Developmental Center in 2018 (approx. 390 clients)



- Fairview Development Center to follow (approx. 270 clients)

- Non-secure portions of Porterville in 2021

- Expanded funding for Regional Center service development through Community Placement Plan (CPP)

More Regional Center Updates

- Self Determination Program- 3 year phase in IPPs written in threshold languages within 45 days
  - Threshold= 3000 or 5% Medi-Cal beneficiaries in area
  - Cost neutral change- no additional funding for translation
- Changes to regulations for secure perimeter treatment facilities

- Increase number of enhanced behavior support homes piloted

Medi-Cal Behavioral Health Treatment (BHT)

Authority for BHT: Health & Safety Code §1374.73

- (c) For the purposes of this section, the following definitions shall apply:
- (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.

Medi-Cal Transition Plan

The transition will begin on February 1, 2016 according to the number of beneficiaries in the Plan's county:

- **Counties with ≤100 beneficiaries** will transition all beneficiaries at once on February 1, 2016
- **Counties with >100 beneficiaries** will start the transition on February 1 by the beneficiary's birth month over a period of 6 months
- **Los Angeles County** will transition beneficiaries by regional center over a period of 6 months

CAPTAIN and BHT

- Regional Centers partnering with Managed Care Plans to share information on evidence based practices and service delivery models

- CAPTAIN Leadership team members met with Department of Health Care Services (DHCS)

  – DHCS adopting NSP2 and NPDC as standards of EBPs

  – Discussed multi-system collaboration for screening, diagnosis and assessment

California Autism Professional Training and Information Network
Behavioral Health Treatment
Service Delivery Models and Evidence Based Practices (2015)

On the CAPTAIN WEBSITE IN RESOURCES

Service Delivery Model *Identifies how behavioral health treatment (BHT) is delivered and who is responsible for treatment provision*	**Comprehensive Interventions** *Address all developmental domains* *Intensity: 25-40 hours per week, may be less depending on child/family needs* *Age range: typically start before age 5 and fade in intensity between ages 6-8*	**Focused Interventions** *Address interfering behaviors or specific skill deficits that:* • *pose a risk to health and safety* • *limit access to socially inclusive or least restrictive environments* *Not age or diagnosis specific* *Intensity: 2-20 hours per week* *Duration: 6-24 months*	**Evidence Based Practices** *An **evidence-based practice** (EBP) is a teaching method used to teach a specific skill that has been shown to be effective based on high-quality research (Cook, Tankersly, & Landrum, 2009; Odom, Brantlinger, Gersten, Horner, Thompson, & Harris, 2005).*
Therapist Delivered BHT is delivered in a 1, 2, or 3 tiered model using Qualified Autism Service Provider, Qualified Autism Service Professional, and Qualified Autism Service Paraprofessional	Comprehensive Behavior Treatment for Young Children (CBTYC): Intensive early behaviorally based intervention to address the core symptoms of ASD	Behavior Intervention(s): Uses EBPs to reduce interfering behavior and teach replacement skills Social Skills: Direct instruction on social skills in an individual or group setting Adaptive Skills Training/Communication Training: Use of multiple strategies to teach daily living skills/communication	27 EBPs defined in NPDC (2014): *Please see CAPTAIN chart for EBP use with specific ages and developmental domains. Full definitions of EBPs available in NPDC (2014) publication.*
Parent Delivered Parent training and coaching provided by a Qualified Autism Service Provider/Professional	Through consultation and coaching, parents are trained to teach skills, support appropriate behaviors, and provide opportunities for skill generalization and maintenance. Must be included in comprehensive programs.		Parent Implemented Intervention
Peer/Natural Support Delivered Intervention provided by naturally occurring supports, including environmental supports and/or trained peers. Peers and others are typically trained by a Qualified Autism Service Provider/Professional.	Peers are trained and supported in the delivery of strategies to assist individual with ASD in performing appropriate skills and behaviors for the context. May be included in later stages of comprehensive treatment.		Peer Mediated Instruction & Intervention Structured Play Groups Naturalistic Intervention
Self Delivered Therapeutic strategies are taught to an individual for independent use.	Individual is taught to self monitor and independently manage specific behaviors or skills; OR person is taught to recognize and change interfering thoughts and feelings. May be included in late stages of comprehensive treatment as child matures enough to develop impulse control and awareness of behaviors.		Self-Management Training Cognitive Behavior Intervention

Adapted from:

1. Wong, C., Odom, S. L., Hume, K. A., Cox, C. W., Fettig, A., Kurcharczyk, S., et al. (2015). Evidence-based practices for children, youth, and young adults with autism spectrum disorder: A comprehensive review. Journal of Autism and Developmental Disorders. Advance online publication
2. National Autism Center (2015). Findings and conclusions: National standards project, phase 2. Randolph, MA
3. California Association for Behavior Analysis (2011) Guidelines for Applied Behavior Analysis (ABA) Services: Recommendations for Best Practices for Regional Centers.

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Stay Up-To-Date!

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FPG [fpg@unc.edu]

To: The fpg-enews mailing list. [fpg-enews@listserv.unc.edu]

Tuesday, Octobe

- To help protect your privacy, some content in this message has been blocked. If you're sure this message is from a trusted sender and you want to re-enable the blocked features, click here.

Free Resources: Blueprint Shows How to Improve Early Childhood Pre-Service Programs
Also available at no cost are resources on cultural and linguistic diversity, science, and math... **more**

Teaching Math to Young Children: Practice Guide Offers Tips for Ages 3-6
In case you missed it, this free guide provides recommendations and solutions for teaching math to preschool, pre-K, and kindergarten children... **more**

Launch: FPG and Partners Open New Center on Early Childhood
The center will help improve outcomes for children and support professional development for providers... **more**

3 Million Page Views: FPG's Widely-Used CONNECT Content Supports New Federal Policy
FPG's globally-popular online modules and courses help professionals work with young children in inclusive settings... **more**

New FPG Study: Pre-K "Significantly Improves" Student Readiness
Students in Georgia's Pre-K program show educational improvement in key areas and progress at a greater rate while participating in the program... **more**

TED II: Kate Gallagher's New TED Talk Poised to Become Most Viewed
The sequel to UNC's most popular TED talk of the year is live--and it's about to become the most watched talk from this year's TED event in Memphis... **more**

Now Available: Free Learning Modules Are Online from FPG's Autism Experts
This online instruction teaches how to use evidence-based practices for learners with autism from birth to age 22... **more**

Portal: The ECTA Center Provides Connections to Resources for Families / para Familias
FPG's Early Childhood Technical Assistance Center regularly links professionals to a wealth of news and information, and it also provides connections to resources for families in English and en Español... **more**

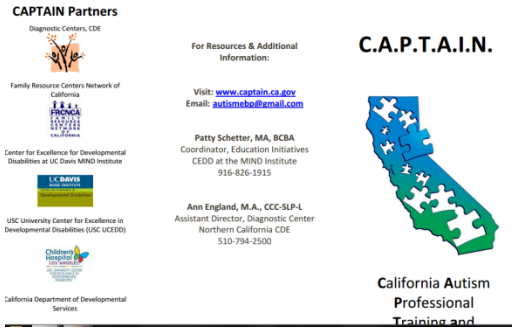
Your Leadership Team is Spreading the Word about CAPTAIN!

- **ACSE** (Advisory Commission on Special Education)
- **CARS+(**Organization for Special Educators)
- **CASP** (California Association of School Psychologists)
- **ACSA** (Association of California School Administrators)
- **CSHA** (CA Speech-Language Hearing Association)
- **AUCD** (Association of UC Centers on Disabilities)
- **DHCS (**Department of Health Care Services)
- **Regional Centers** Chief Counsel State Meeting
- **SELPA** (Special Education Local Plan Area State Directors Meetings)
- **SEACO** (Special Education Administrators of County Offices)
- **Central Valley** Post Secondary/Teacher Preparation Meetings

And....

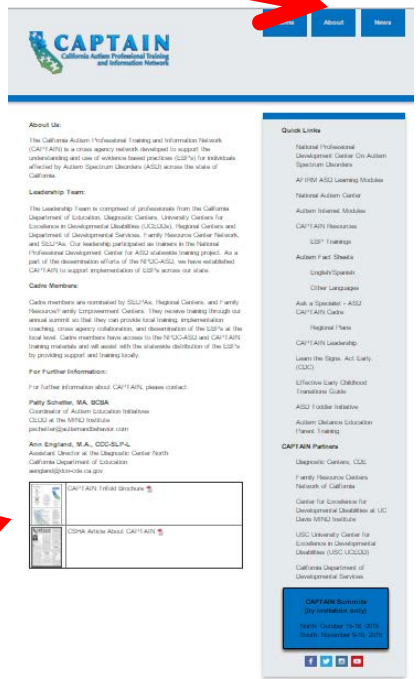
- White paper being developed about CAPTAIN process and outcomes for professional journal publication

Did you know…..



The tri-fold CAPTAIN brochure is available for *you* to print?

Go to the **ABOUT** tab on the CAPTAIN website!



Did you know…..

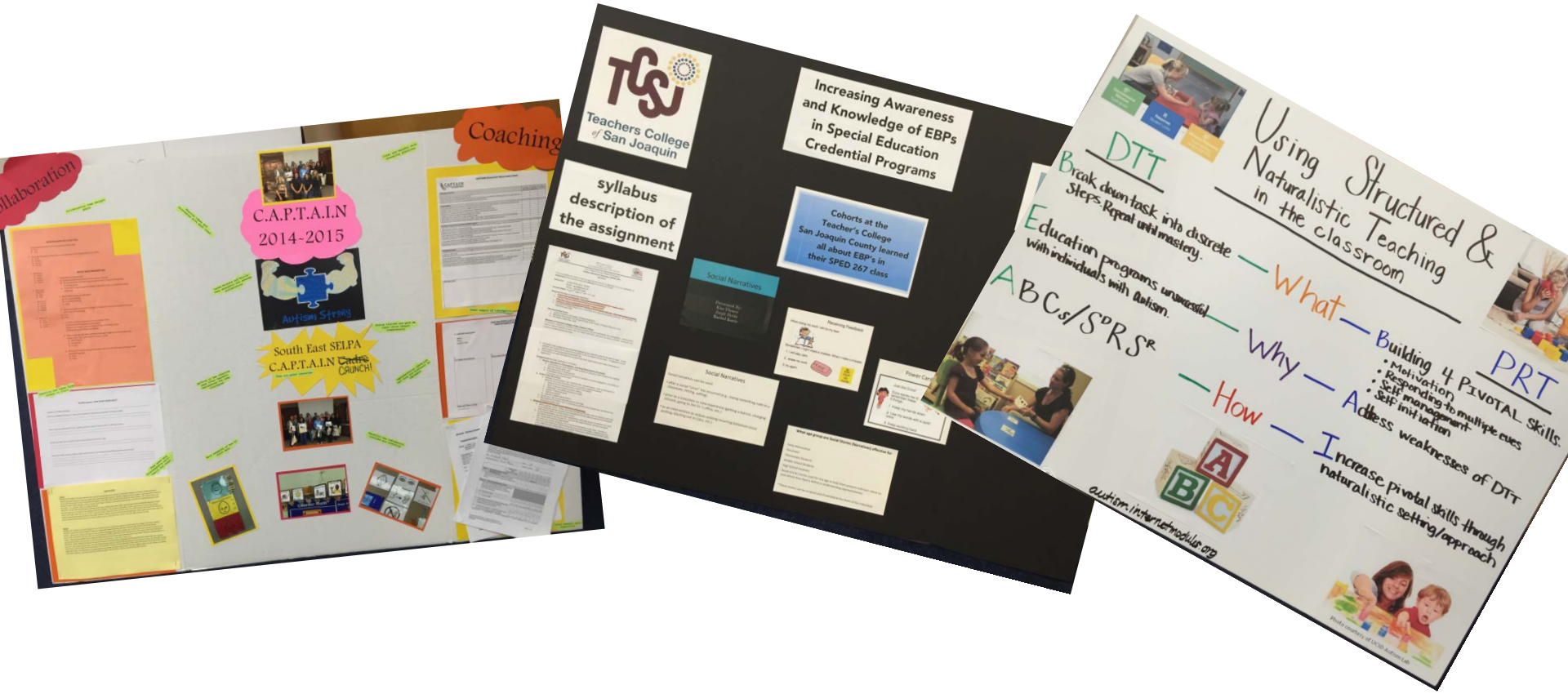
The self-learning module about ASD “Autism Across the Lifespan” will soon be available free at:

www.coursera.org

Keep checking! ☺

Did you know…

Photos of the North & South CAPTAIN Showcase posters will be on the CAPTAIN website next week? ☺



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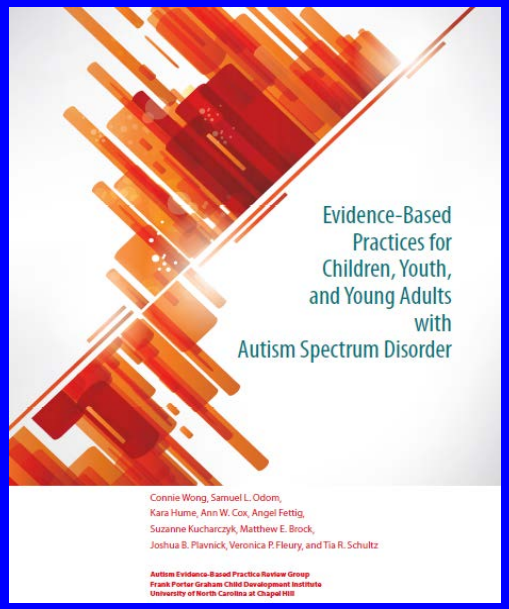
What are Evidence-Based Practices (EBPs) for ASD?



Ann England, M.A., CCC-SLP-L
Assistant Director, Diagnostic Center, CDE * CAPTAIN Leader
October 2015

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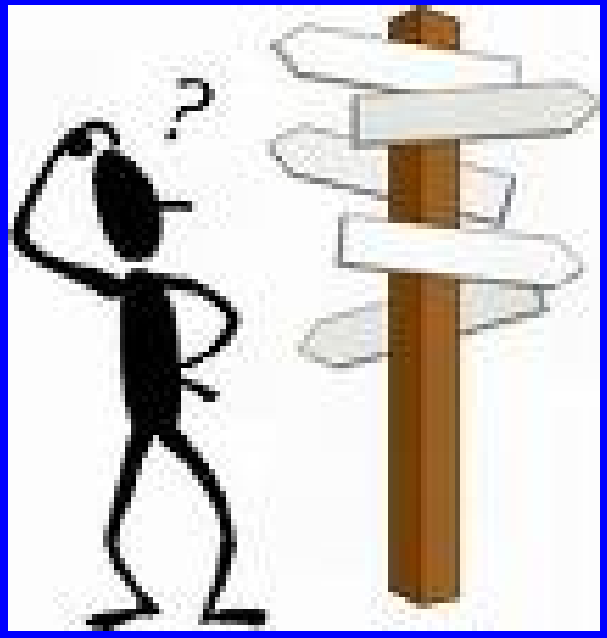
How many results do you think you would get if you did a Google search for:

"AUTISM TREATMENT"?



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AUTISM TREATMENT

Web News Images Videos Books More Search tools

About 70,100,000 results (0.69 seconds)

Autism treatment - CservTelehealth.com

Ad www.cservtelehealth.com/ (352) 385-4583

Results 70,100,000 for "AUTISM TREATMENT"!!!!!
(November 3, 2015)

Autism Treatment - Autism Therapy For Your Child

Ad www.californiahyperbarics.com/**autism** (877) 244-2188

Contact CIHC For Oxygen **Therapy**.

Professional Treatment - Autism Treatment Services

Autism Treatment Videos - Video lessons & phone support

Myriad of ASD Treatments

- 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 Professional Development Center (NPDC)	National Autism Center (NAC)
1. 27 Evidence Based Practices Briefs 2. AFIRM 3. EBPs for Young Children **Released March 2014**	1. National Standards Project Report-Phase NSP2 **Released April 2015**
http://autismpdc.fpg.unc.edu http://afirm.fpg.unc.edu/ http://asdtoddler.fpg.unc.edu www.captain.ca.gov	www.nationalautismcenter.org 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

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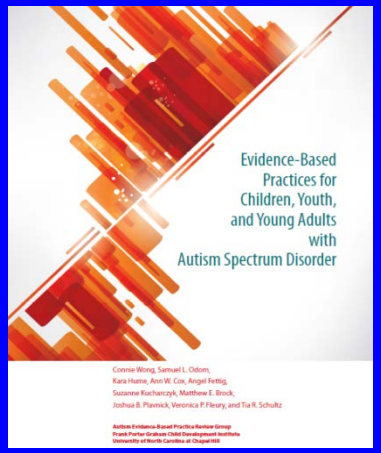
A History of Systematic Reviews of the Literature for Evidence Based Practices (EBPs)

- **In 2010, 24 EBPs**
  - National Professional Development Center (NPDC)
  - Included 10 years, 1997-2007



- **In 2014, 27 EBPs**
  - 2nd review 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/

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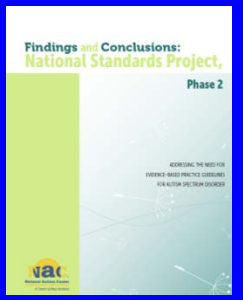
A History of Systematic Reviews of the Literature for Evidence Based Practices (EBPs)



- **In 2015, 14 Established Interventions Under Age 22**
  1 Established Intervention Age 22+
  - **2nd** Review 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

2 Important ASD EBP Resources

National Professional Development Center (NPDC)	National Autism Center (NAC)
1. 27 Evidence Based Practices Briefs 2. AFIRM 3. EBPs for Young Children **Released March 2014**	1. National Standards Project Report-Phase NSP2 **Released April 2015**
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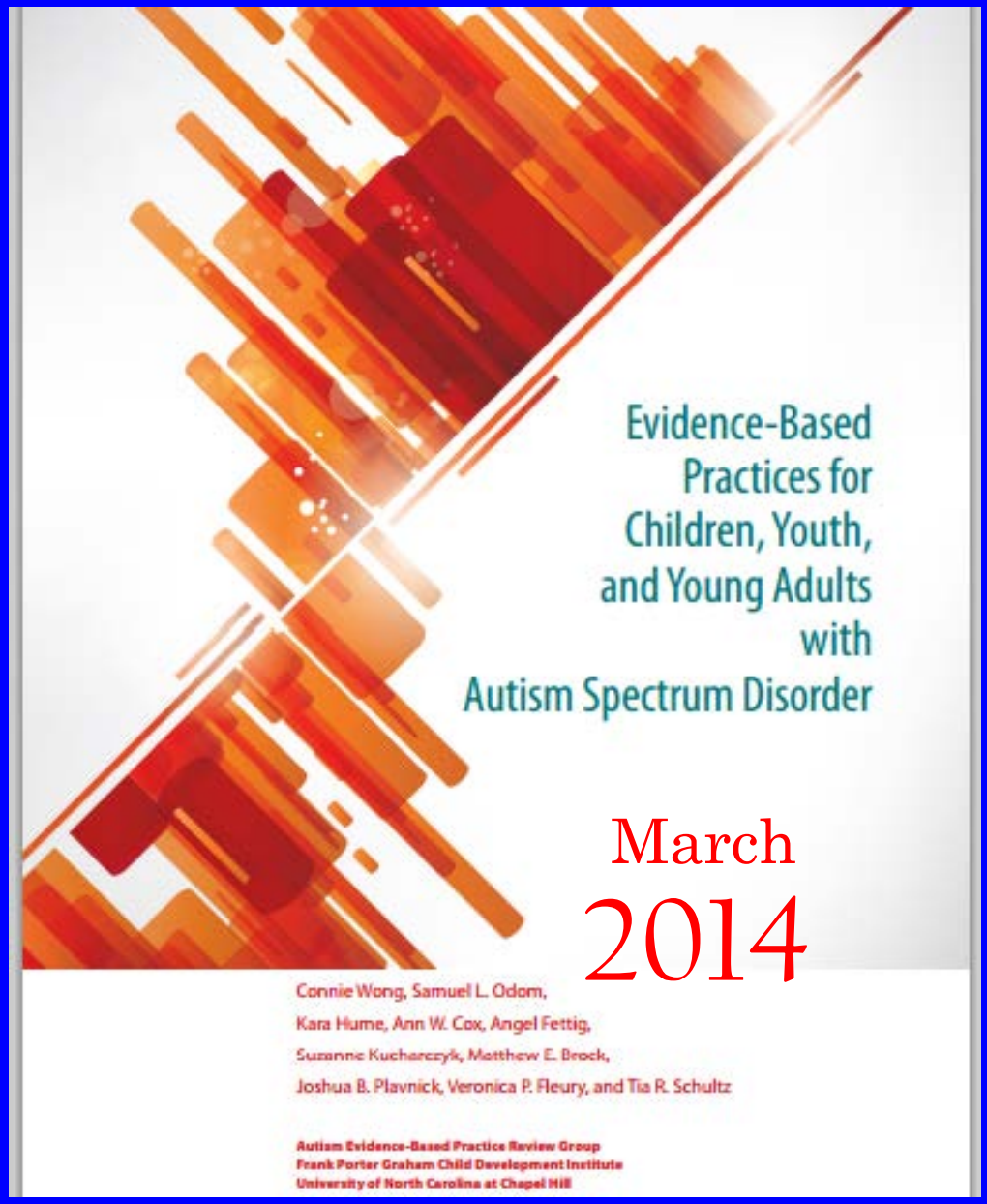

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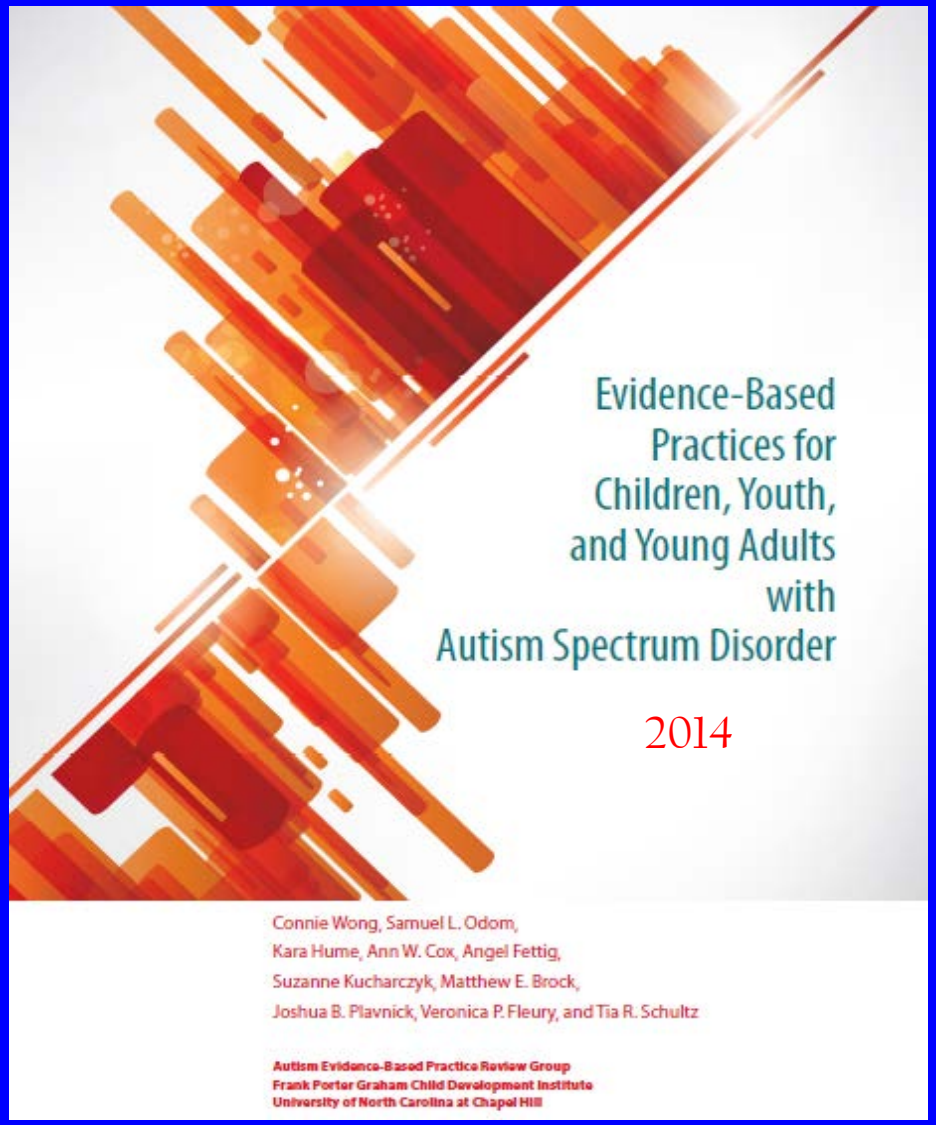
What's in this report?



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Definition of EBP (NPDC)

NPDC definition of an EBP:

"Focused intervention practices that have substantial evidence for effectiveness in promoting positive outcomes for learners with ASD"

NPDC Criteria for EBP

THE NATIONAL PROFESSIONAL DEVELOPMENT CENTER ON AUTISM SPECTRUM DISORDERS

To be considered an EBP for individuals with ASD, efficacy must be established through peer-reviewed research in scientific journals using:

- At least two high quality experimental or quasi-experimental group design articles conducted by at least two different researchers or research groups

OR

- At least five high quality single case design articles conducted by at least three different researchers or research groups having a total of at least 20 participants across studies

OR

- A combination of at least one high quality experimental or quasi-experimental group design article and at least three high quality single case design articles conducted by at least two different research groups

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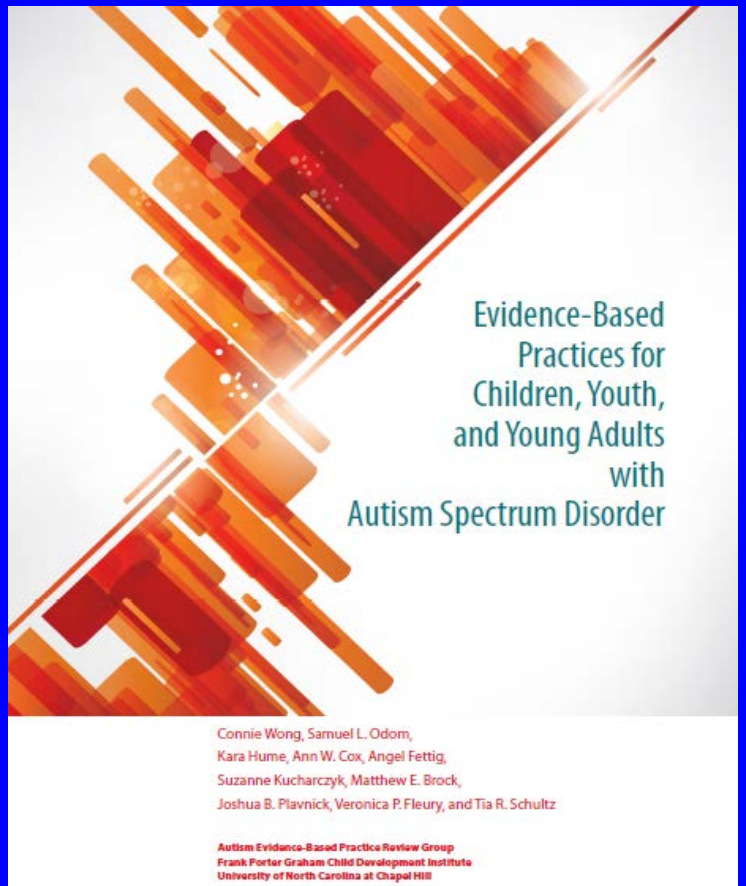
What are these 27 EBPs?

The 27 EBPs are listed and defined in Table 7 of the report!



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27 Evidence – Based Practices (2014)

- Antecedent-based interventions
- Cognitive behavioral intervention*
- Differential reinforcement
- Discrete trial training
- Exercise*
- Extinction
- Functional behavior assessment
- Functional communication training
- Modeling*
- Naturalistic interventions
- Parent-implemented intervention
- Peer-mediated instruction/intervention
- Picture Exchange Communication System™
- Pivotal response training
- Prompting
- Reinforcement
- Response interruption/redirection
- Scripting*
- Self-management
- Social narratives
- Social skills training
- Structured play groups*
- Task analysis
- Technology-aided intervention/instruction*
- Time delay
- Video modeling
- Visual supports

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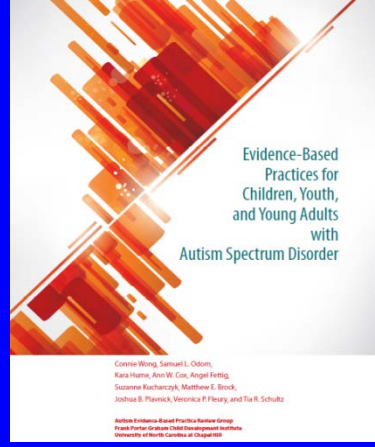
** Added from 2014 literature review*

DEFINITIONS OF 27 EBPs

Table 7. Working Definitions for EBPs

Evidence-Based Practice	Definition	Empirical Support: Group (n)	Empirical Support: Single Case (n)
Antecedent-based intervention (ABI)	Arrangement of events or circumstances that precede the occurrence of an interfering behavior and designed to lead to the reduction of the behavior.	0	32
Cognitive behavioral intervention (CBI)	Instruction on management or control of cognitive processes that lead to changes in overt behavior.	3	1
Differential reinforcement of Alternative, Incompatible, or Other Behavior (DRA/I/O)	Provision of positive/desirable consequences for behaviors or their absence that reduce the occurrence of an undesirable behavior. Reinforcement provided: a) when the learner is engaging in a specific desired behavior other than the inappropriate behavior (DRA), b) when the learner is engaging in a behavior that is physically impossible to do while exhibiting the inappropriate behavior (DRI), or c) when the learner is not engaging in the interfering behavior (DRO).	0	26
Discrete trial teaching (DTT)	Instructional process usually involving one teacher/service provider and one student/client and designed to teach appropriate behavior or skills. Instruction usually involves massed trials. Each trial consists of the teacher's instruction/presentation, the child's response, a carefully planned consequence, and a pause prior to presenting the next instruction.	0	13
Exercise (ECE)	Increase in physical exertion as a means of reducing problem behaviors or increasing appropriate behavior.	3	3
Extinction (EXT)	Withdrawal or removal of reinforcers of interfering behavior in order to reduce the occurrence of that behavior. Although sometimes used as a single intervention practice, extinction often occurs in combination with functional behavior assessment, functional communication training, and differential reinforcement.	0	11
Functional behavior assessment (FBA)	Systematic collection of information about an interfering behavior designed to identify functional contingencies that support the behavior. FBA consists of describing the interfering or problem behavior, identifying antecedent or consequent events that control the behavior, developing a hypothesis of the function of the behavior, and/or testing the hypothesis.	0	10
Functional communication training (FCT)	Replacement of interfering behavior that has a communication function with more appropriate communication that accomplishes the same function. FCT usually includes FBA, DRA, and/or EX.	0	12
Modeling (MD)	Demonstration of a desired target behavior that results in imitation of the behavior by the learner and that leads to the acquisition of the imitated behavior. This EBP is often combined with other strategies such as prompting and reinforcement.	1	4
Naturalistic intervention (NI)	Intervention strategies that occur within the typical setting/activities/routines in which the learner participates. Teachers/service providers establish the learner's interest in a learning event through arrangement of the setting/activity/routine, provide necessary support for the learner to engage in the targeted behavior, elaborate on the behavior when it occurs, and/or arrange natural consequences for the targeted behavior or skills.	0	10
Parent-implemented intervention (PII)	Parents provide individualized intervention to their child to improve/increase a wide variety of skills and/or to reduce interfering behaviors. Parents learn to deliver interventions in their home and/or community through a structured parent training program.	8	12
Peer-mediated instruction and intervention (PMII)	Typically developing peers interact with and/or help children and youth with ASD to acquire new behavior, communication, and social skills by increasing social and learning opportunities within natural environments. Teachers/service providers systematically teach peers strategies for engaging children and youth with ASD in positive and extended social interactions in both teacher-directed and learner-initiated activities.	0	15



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DEFINITIONS OF 27 EBPs

Evidence-Based Practice	Definition	Empirical Support: Group (n)	Empirical Support: Single Case (n)
Picture Exchange Communication System (PECS)	Learners are initially taught to give a picture of a desired item to a communicative partner in exchange for the desired item. PECS consists of six phases which are: (1) "how" to communicate, (2) distance and persistence, (3) picture discrimination, (4) sentence structure, (5) responsive requesting, and (6) commenting.	2	4
Pivotal response training (PRT)	Pivotal learning variables (i.e., motivation, responding to multiple cues, self-management, and self-initiations) guide intervention practices that are implemented in settings that build on learner interests and initiative.	1	7
Prompting (PP)	Verbal, gestural, or physical assistance given to learners to assist them in acquiring or engaging in a targeted behavior or skill. Prompts are generally given by an adult or peer before or as a learner attempts to use a skill.	1	32
Reinforcement (R+)	An event, activity, or other circumstance occurring after a learner engages in a desired behavior that leads to the increased occurrence of the behavior in the future.	0	43
Response interruption/ redirection (RIR)	Introduction of a prompt, comment, or other distracters when an interfering behavior is occurring that is designed to divert the learner's attention away from the interfering behavior and results in its reduction.	0	10
Scripting (SC)	A verbal and/or written description about a specific skill or situation that serves as a model for the learner. Scripts are usually practiced repeatedly before the skill is used in the actual situation.	1	8
Self-management (SM)	Instruction focusing on learners discriminating between appropriate and inappropriate behaviors, accurately monitoring and recording their own behaviors, and rewarding themselves for behaving appropriately.	0	10
Social narratives (SN)	Narratives that describe social situations in some detail by highlighting relevant cues and offering examples of appropriate responding. Social narratives are individualized according to learner needs and typically are quite short, perhaps including pictures or other visual aids.	0	17
Social skills training (SST)	Group or individual instruction designed to teach learners with autism spectrum disorders (ASD) ways to appropriately interact with peers, adults, and other individuals. Most social skill meetings include instruction on basic concepts, role-playing or practice, and feedback to help learners with ASD acquire and practice communication, play, or social skills to promote positive interactions with peers.	7	8
Structured play group (SPG)	Small group activities characterized by their occurrences in a defined area and with a defined activity, the specific selection of typically developing peers to be in the group, a clear delineation of theme and roles by adult leading, prompting, or scaffolding as needed to support students' performance related to the goals of the activity.	2	2
Task analysis (TA)	A process in which an activity or behavior is divided into small, manageable steps in order to assess and teach the skill. Other practices, such as reinforcement, video modeling, or time delay, are often used to facilitate acquisition of the smaller steps.	0	8
Technology-aided instruction and intervention (TAII)	Instruction or interventions in which technology is the central feature supporting the acquisition of a goal for the learner. Technology is defined as "any electronic item/ equipment/ application/or virtual network that is used intentionally to increase/maintain, and/or improve daily living, work/productivity, and recreation/leisure capabilities of adolescents with autism spectrum disorders" (Odom, Thompson, et al., 2013).	9	11

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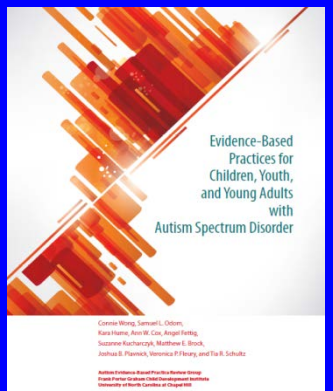
DEFINITIONS OF 27 EBPs

Evidence-Based Practice	Definition	Empirical Support	
		Group (n)	Single Case (n)
Time delay (TD)	In a setting or activity in which a learner should engage in a behavior or skill, a brief delay occurs between the opportunity to use the skill and any additional instructions or prompts. The purpose of the time delay is to allow the learner to respond without having to receive a prompt and thus focuses on fading the use of prompts during instructional activities.	0	12
Video modeling (VM)	A visual model of the targeted behavior or skill (typically in the behavior, communication, play, or social domains), provided via video recording and display equipment to assist learning in or engaging in a desired behavior or skill.	1	31
Visual support (VS)	Any visual display that supports the learner engaging in a desired behavior or skills independent of prompts. Examples of visual supports include pictures, written words, objects within the environment, arrangement of the environment or visual boundaries, schedules, maps, labels, organization systems, and timelines.	0	18



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FACT SHEETS AVAILABLE IN THE REPORT FOR EACH OF THE 27 EBPs

Video Modeling
Fact Sheet

Brief Description

Video modeling (VM) is a method of instruction that uses video recording
ment to provide a visual model of the targeted behavior or skill. The mode
learner, who then has an opportunity to perform the target behavior, eithe
a later point in time. Types of video modeling include basic video modelin
point-of-view video modeling, and video prompting. *Basic video modeling*
and involves recording someone besides the learner engaging in the target
self-modeling is used to record the learner displaying the target skill or beh
editing to remove adult prompts. *Point-of-view video modeling* is when the
skill is recorded from the perspective of what the learner will see when he
response. *Video prompting* involves breaking the behavior into steps and recording each step with incorporated pauses during which the learner may view and then attempt a step before viewing and attempting subsequent steps. Video prompting can be implemented with other, self, or point-of-view models. Video modeling strategies have been used in isolation and also in conjunction with other intervention components such as prompting and reinforcement strategies.

Qualifying Evidence

VM meets evidence-based criteria with 1 group design and 31 single case design studies.

Ages

According to the evidence-based studies, this intervention has been effective for toddlers (0-2 years) to young adults (19–22) years with ASD.

Outcomes

VM can be used effectively to address social, communication, behavior, joint attention, play, cognitive, school-readiness, academic, motor, adaptive, and vocational skills.

Research Studies Poviding Evidence

Akmanoglu, N., & Tekin-Iftar, E. (2011). Teaching children with autism how to respond to the lures of strangers. *Autism*, *15*(2), 205-222. doi: 10.1177/1362361309352180

Allen, K. D., Wallace, D. P., Greene, D. J., Bowen, S. L., & Burke, R. V. (2010). Community-based vocational instruction using videotaped modeling for young adults with autism spectrum disorders performing in air-inflated mascots. *Focus on Autism and Other Developmental Disabilities*, *25*(3), 186-192. doi: 10.1177/1088357610377318

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

Connie Wong, Samuel L. Odom, Kara Hume, Ann W. Cox, Angel Fettig, Suzanne Kucharczyk, Matthew E. Brock, Joshua B. Plavnick, Veronica P. Fleury, and Tia R. Schultz

Autism Evidence-Based Practice Review Group
Frank Porter Graham Child Development Institute
University of North Carolina at Chapel Hill

Definition of the intervention

Age range of participants

Type of outcomes it has generated

- **Citations for the specific articles that provide the evidence for the efficacy of the practice**

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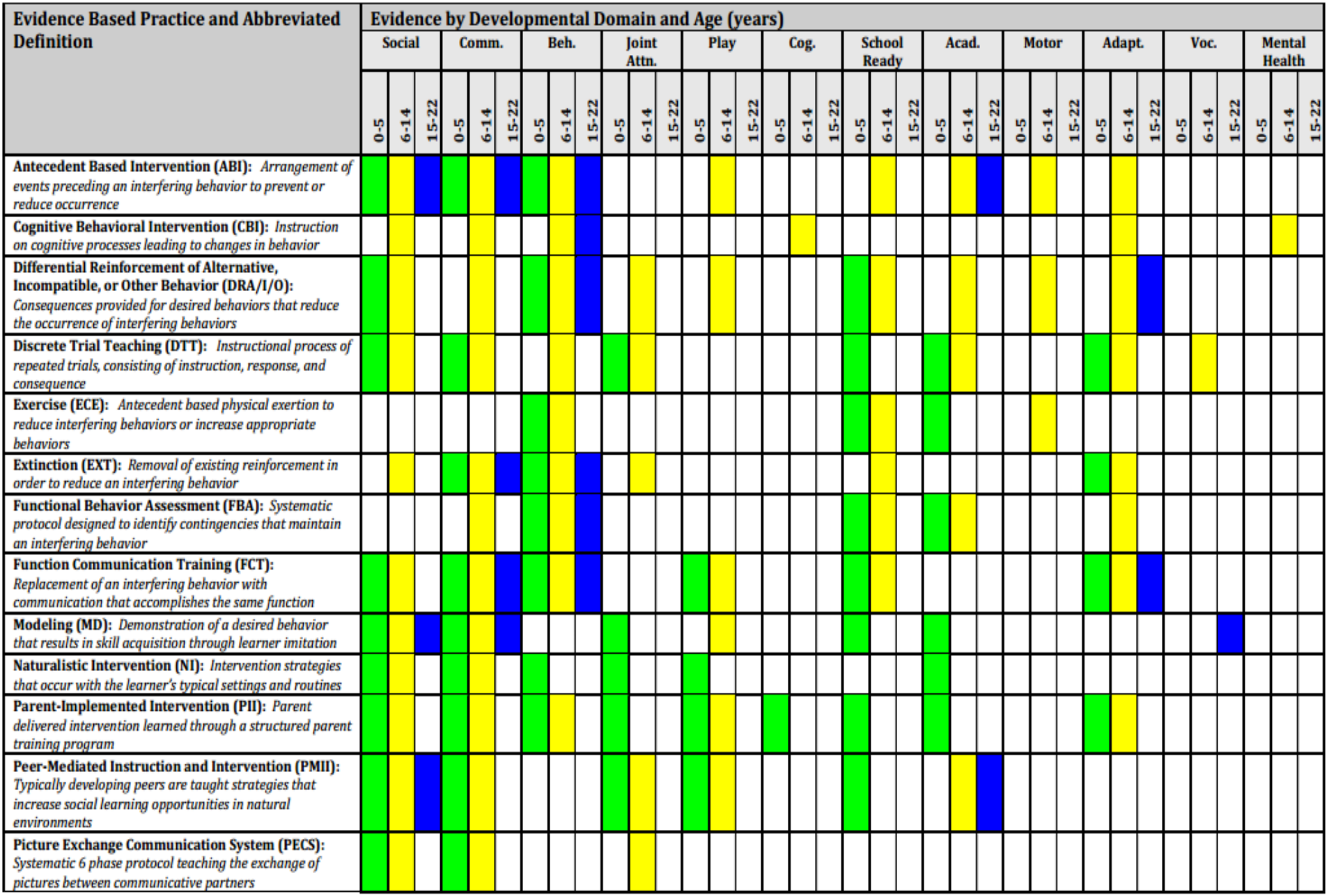
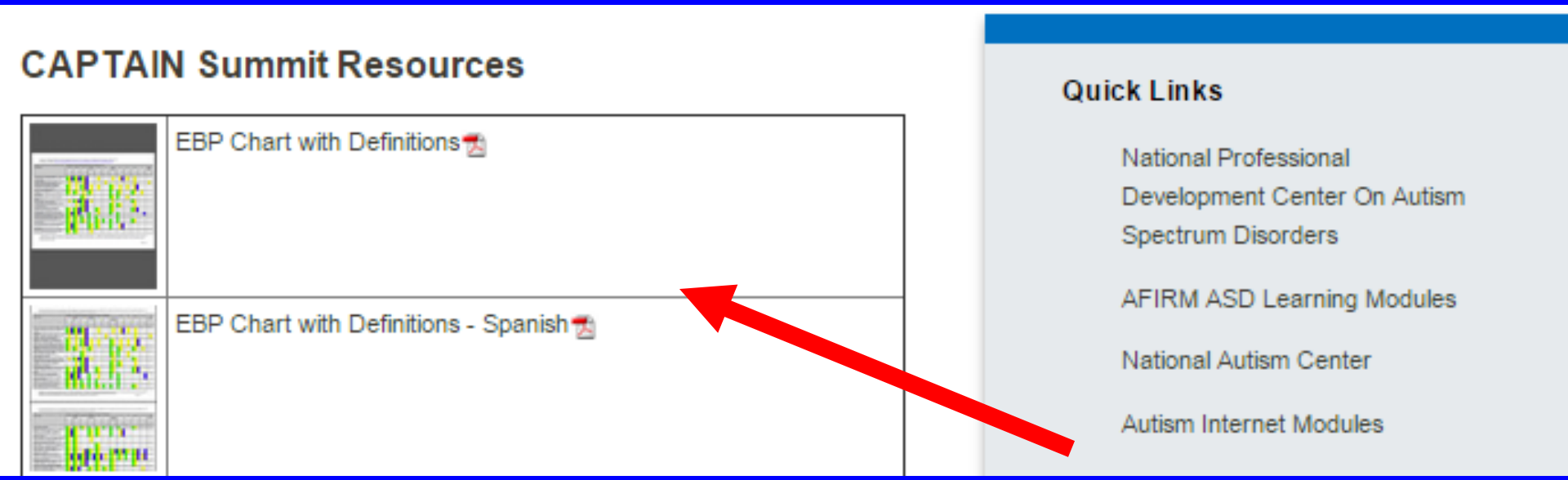

Evidence Based Practice and Abbreviated Definition
Evidence by Developmental Domain and Age (years)
Social
Comm.
Beh.
Joint Attn.
Play
Cog.
School Ready
Acad.
Motor
Adapt.
Voc.
Mental Health
0-5
6-14
15-22
Antecedent Based Intervention (ABI): Arrangement of events preceding an interfering behavior to prevent or reduce occurrence
Cognitive Behavioral Intervention (CBI): Instruction on cognitive processes leading to changes in behavior
Differential Reinforcement of Alternative, Incompatible, or Other Behavior (DRA/I/O): Consequences provided for desired behaviors that reduce the occurrence of interfering behaviors
Discrete Trial Teaching (DTT): Instructional process of repeated trials, consisting of instruction, response, and consequence
Exercise (ECE): Antecedent based physical exertion to reduce interfering behaviors or increase appropriate behaviors
Extinction (EXT): Removal of existing reinforcement in order to reduce an interfering behavior
Functional Behavior Assessment (FBA): Systematic protocol designed to identify contingencies that maintain an interfering behavior
Function Communication Training (FCT): Replacement of an interfering behavior with communication that accomplishes the same function
Modeling (MD): Demonstration of a desired behavior that results in skill acquisition through learner imitation
Naturalistic Intervention (NI): Intervention strategies that occur with the learner's typical settings and routines
Parent-Implemented Intervention (PII): Parent delivered intervention learned through a structured parent training program
Peer-Mediated Instruction and Intervention (PMII): Typically developing peers are taught strategies that increase social learning opportunities in natural environments
Picture Exchange Communication System (PECS): Systematic 6 phase protocol teaching the exchange of pictures between communicative partners

Evidence Based Practice and Abbreviated Definition	Evidence by Developmental Domain and Age (years)																																						
	Social			Comm.			Beh.			Joint Attn.			Play			Cog.			School Ready			Acad.			Motor			Adapt.			Voc.			Mental Health							
	0-5	6-14	15-22	0-5	6-14	15-22	0-5	6-14	15-22	0-5	6-14	15-22	0-5	6-14	15-22	0-5	6-14	15-22	0-5	6-14	15-22	0-5	6-14	15-22	0-5	6-14	15-22	0-5	6-14	15-22	0-5	6-14	15-22	0-5	6-14	15-22	0-5	6-14	15-22
Pivotal Response Training (PRT): *Pivotal learning variables guide intervention implemented in settings that build on learner interests and initiative*																																							
Prompting (PP): *Verbal, gestural, or physical assistance that supports skill acquisition*																																							
Reinforcement (R+): *A response occurring after a behavior resulting in an increased likelihood of future reoccurrence of the behavior*																																							
Response Interruption/Redirection (RIR): *Use of prompts or distracters during an interfering behavior that diverts attention and reduces the behavior*																																							
Scripting (SC): *A verbal or written model of a skill or situation that is practiced before use in context*																																							
Self Management (SM): *Instruction on discrimination between appropriate and inappropriate behaviors and accurate self-monitoring and rewarding of behaviors*																																							
Social Narratives (SN): *Descriptions of social situations with examples of appropriate responding*																																							
Social Skills Training (SST): *Direct instruction on social skills with rehearsal and feedback to increase positive peer interaction.*																																							
Structured Play Group (SPG): *Adult lead small group activities that include typically developing peers and use prompting to support performance*																																							
Task Analysis (TA): *The process of breaking a skill into small steps that are systematically chained together*																																							
Technology-Aided Instruction and Intervention (TAII): *Intervention using technology as a critical feature*																																							
Time Delay (TD): *Delaying a prompt during a practice opportunity in order to fade the use of prompts*																																							
Video Modeling (VM): *A video recording of a targeted skill that is viewed to assist in learning*																																							
Visual Support (VS): *Visual display that supports independent skill use.*																																							

27 EBPs Matrix
Available on the CAPTAIN Website
English and Spanish!

www.captain.ca.gov



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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"

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Implementation Fidelity is Critical!

How implementation fidelity achieved:

1. Use Briefs and Implementation Checklists for the EBP to capture fidelity of implementation
2. Refer to EBP Fact Sheets
3. Use self-learning modules on practices
4. Attend training on the practice
5. Access coaching on the EBP until fidelity is attained

National Professional Development Center-ASD

NPDC

http://autismpdc.fpg.unc.edu

Brief Packages For Evidence Based Practices (EBPs)

Brief Package Ensures Fidelity and Consists of:

- Overview of practice
- Evidence-base for practice
- Steps for implementation
- Implementation Checklist
- Data Collection Forms

THE NATIONAL PROFESSIONAL DEVELOPMENT CENTER ON AUTISM SPECTRUM DISORDERS

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The National Professional Development Center
on Autism Spectrum Disorder

Since 2007, the National Professional Development Center on Autism Spectrum Disorder (NPDC) has worked to develop free professional resources for teachers, therapists, and technical assistance providers who work with individuals with ASD. Resources include detailed information on how to plan, implement, and monitor specific evidence-based practices.

NPDC NEWS & UPDATES

Welcome to our new website!
We are pleased to be able to continue developing resources and materials that assist teachers and interventionists in implementing evidence-based practices (EBP).

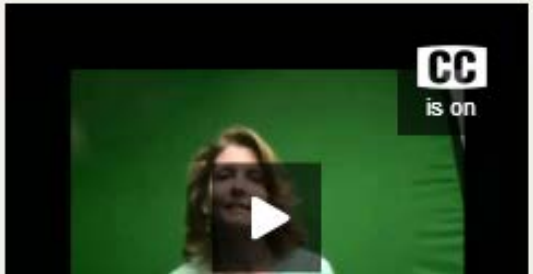
READ MORE

AFIRM

Autism Focused Intervention Resources and Modules

Coming Soon!

BRIEF NPDC OVERVIEW VIDEO



The National Professional Development Center on Autism Spectrum Disorder

HOME | ABOUT NPDC | EVIDENCE-BASED PRACTICES | NPDC MODEL | RESOURCES

EVIDENCE-BASED PRACTICES
- WHAT CRITERIA DETERMINED IF AN INTERVENTION WAS EFFECTIVE?
- HOW DO I FIND OUT MORE ABOUT EBPS?

WHAT ARE EVIDENCE-BASED PRACTICES?

Many interventions exist for autism spectrum disorder (ASD). Yet, scientific research has found only some of these interventions to be effective. The interventions that researchers have shown to be effective are called evidence-based practices (EBPs). One reason for using EBPs is because, by law, teaching practices must be based on evidence of effectiveness.

WHAT EBPS HAVE BEEN IDENTIFIED?

The NPDC used a rigorous criteria to classify 27 focused interventions as EBPs in 2014. The 27 identified EBPs have been shown through scientific research to be effective when implemented correctly with students with ASD. The NPDC is currently developing online modules, called AIRM, for each of the 27 identified practices.

You can currently access online modules for the original 24 evidence-based practices on the Autism Internet Modules (AIM) website from the Ohio Center for Autism and Low Incidence (OCALI).

Select an EBP below to access a brief about the practice. Each brief provides an overview and general description, step-by-step instructions of implementation, an implementation checklist, and the evidence-base which includes the list of references that demonstrate the practice meets the NPDC's criteria.

To print out a specific section of a brief, download the EBP and open using Adobe Reader. You can navigate to different sections of the brief using the menu the left while viewing in Adobe Reader.

EVIDENCE-BASED PRACTICES

- Antecedent-based Intervention (ABI)
- Cognitive Behavioral Intervention (CBI)*
- Differential Reinforcement of Alternative, Incompatible, or Other Behavior (DRA/I/O)
- Discrete Trial Teaching (DTT)
- Exercise (EXE)*
- Extinction (EXT)
- Functional Behavior Assessment (FBA)
- Functional Communication Training (FCT)
- Modeling (MD)*
- Naturalistic Intervention (NI)
- Parent-implemented Intervention (PII)
- Peer-mediated Instruction and Intervention (PMII)
- Picture Exchange Communication System (PECS)
- Pivotal Response Training (PRT)
- Prompting (PP)
- Reinforcement (R+)
- Response Interruption/Redirection (RIR)
- Scripting (SC)*
- Self-management (SM)
- Social Narratives (SN)
- Social Skills Training (SST)* Previously Social Skills Groups
- Structured Play Group (SPG)*
- Task Analysis (TA)
- Technology-aided Instruction and Intervention (TAII)* Previously *Computer Aided Instruction* and *Speech Generating Devices*
- Time Delay (TD)
- Video Modeling (VM)
- Visual Support (VS)

* Indicates new EBP identified in 2014 review. Practice briefs are not available for these practices, but are currently being developed as part of AIRM.

See the working definitions of each EBP in this excerpt from the 2014 Evidence-Based Practices for Children, Youth, and Young Adults with Autism Spectrum Disorder report. The full report is available here.

This project is a program of the FPG Child Development Institute at University of North Carolina at Chapel Hill.

Login

Briefs

CAPTAIN California Autism Professional Training and Information Network

Evidence-Based Practice Brief

National Professional Development Center on
Autism Spectrum Disorders

***Module*: Video Modeling**

Evidence-Based Practice Brief: Video Modeling

This evidence-based practice brief on video modeling includes the following components:

1. **Overview, which gives a quick summary of salient features of the practice, including what it is, who it can be used with, what skills it has been used with, settings for instruction, and additional literature documenting its use in practice**
2. **Steps for Implementation, detailing how to implement the practice in a practitioner-friendly, step-by-step process**
3. **Implementation Checklist, to be used to monitor fidelity of the use of the practice**
4. **Evidence Base Summary, which details the NPDC-ASD criteria for inclusion as an evidence-based practice and the specific studies that meet the criteria for this practice**

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Module: Video Modeling

Steps for Implementation: Video Modeling

These steps for implementation were adapted from:

LaCava, P. (2008). *Video modeling: An online training module.* (Kansas City: University of Kansas, Special Education Department). In Ohio Center for Autism and Low Incidence (OCALI), *Autism Internet Modules*, www.autisminternetmodules.org. Columbus, OH: OCALI.

The implementation process for video modeling is similar for each type of video modeling strategy (i.e., basic video modeling, video self-modeling, point-of-view modeling, video prompting). Ten steps are outlined below which describe how video modeling is implemented with learners with ASD.

Step 1. Targeting a Behavior for Teaching

In Step 1, teachers/practitioners focus on identifying a behavior for the learner with ASD to acquire and then clearly describe it so that accurate data can be collected throughout the

Module: Video Modeling

Implementation Checklist for Video Modeling

The implementation checklist steps were adapted from:

LaCava, P. (2008). *Video modeling: An online training module.* (Kansas City: University of Kansas, Special Education Department). In Ohio Center for Autism and Low Incidence (OCALI), A*utism Internet Modules,* www.autisminternetmodules.org. Columbus, OH: OCALI.

Instructions*:* The Implementation Checklist includes each step in the process of implementing video modeling. Please complete all of the requested information including the site and state, individual being observed, and the learner's initials. To assure that a practice is being implemented as intended, an observation is *always* preferable. This may not always be possible. Thus, items may be scored based on observations with the implementer, discussions and/or record review as appropriate. Within the table, record a 2 (implemented), 1 (partially implemented), 0 (did not implement), or NA (not applicable) next to each step observed to indicate to what extent the step was implemented/addressed during your observation. Use the last page of the checklist to record the target skill, your comments, whether others were present, and plans for next steps for each observation.

Site: _____ State: _____

Individual (s) Observed: _____ Learner's Initials: _____ _

Skills below can be implemented by a practitioner, parent, or other team member

	Observation	1	2	3	4	5	6	7	8
	Date								
	Observer's Initials								
Planning (Steps 1 – 6)									
Step 1. Targeting a Behavior for Teaching	**Score****								
1. Identify a target behavior that is important to be taught.									
2. Define and describe the target behavior so that it is observable and measurable.									
Step 2. Having the Correct Equipment									

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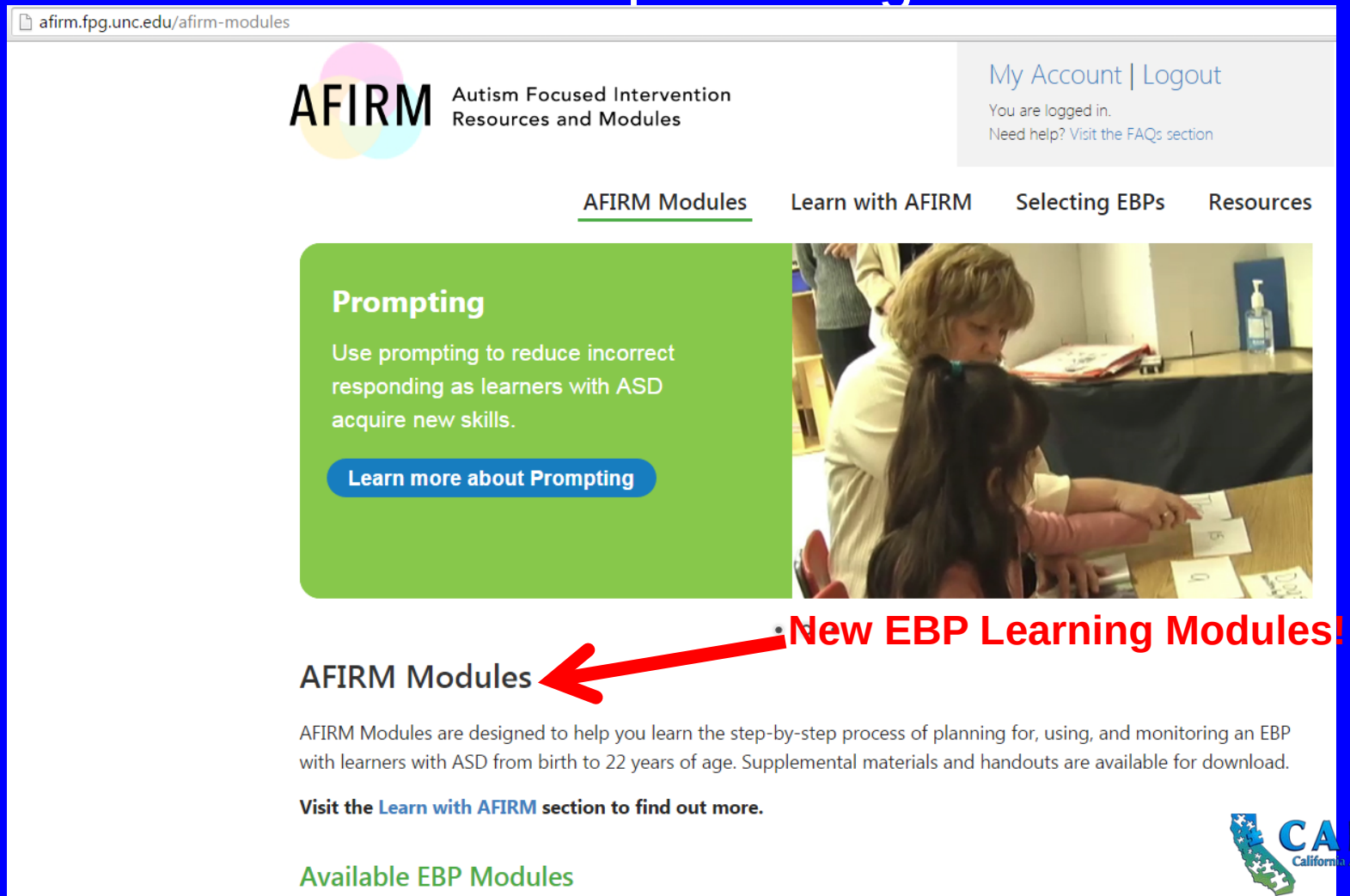
NEW!

AFIRM

Autism Focused Intervention Resources and Modules

http://autismpdc.fpg.unc.edu/npdc-resources

www.captain.ca.gov



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AFIRM

Autism Focused Intervention Resources and Modules

- Modules Include:
  - Key components of an EBP including the various approaches that can be used with learners with ASD
  - Behaviors and skills that can be addressed using the practice
  - A step-by-step process for applying the practice
  - Specific resources that you can download and customize for your own use

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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

You can even choose to earn a Certificate!

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NEW!

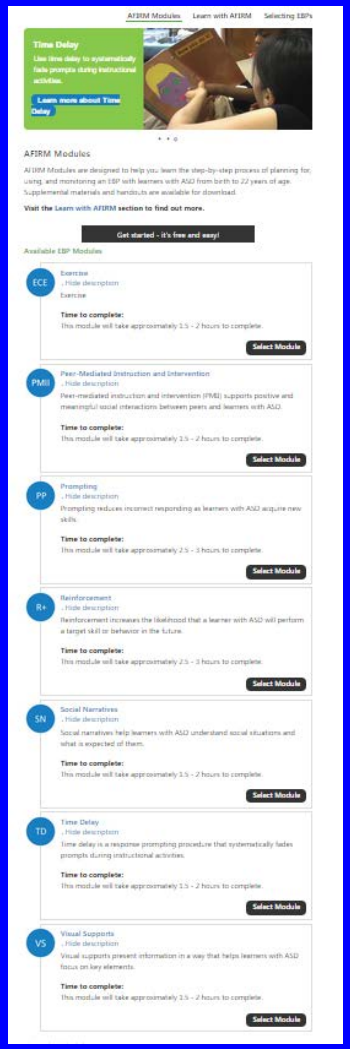
AFIRM

8 of the 27 EBP Modules Available as of 11/14/15

1. ECE Exercise
2. PMII Peer-Mediated Instruction and Intervention
3. PP Prompting
4. R+ Reinforcement
5. SN Social Narratives
6. TA Task Analysis
7. TD Time Delay
8. VS Visual Supports

Next to be developed:

- FBA Functional Behavior Assessment
- SST Social Skills Training

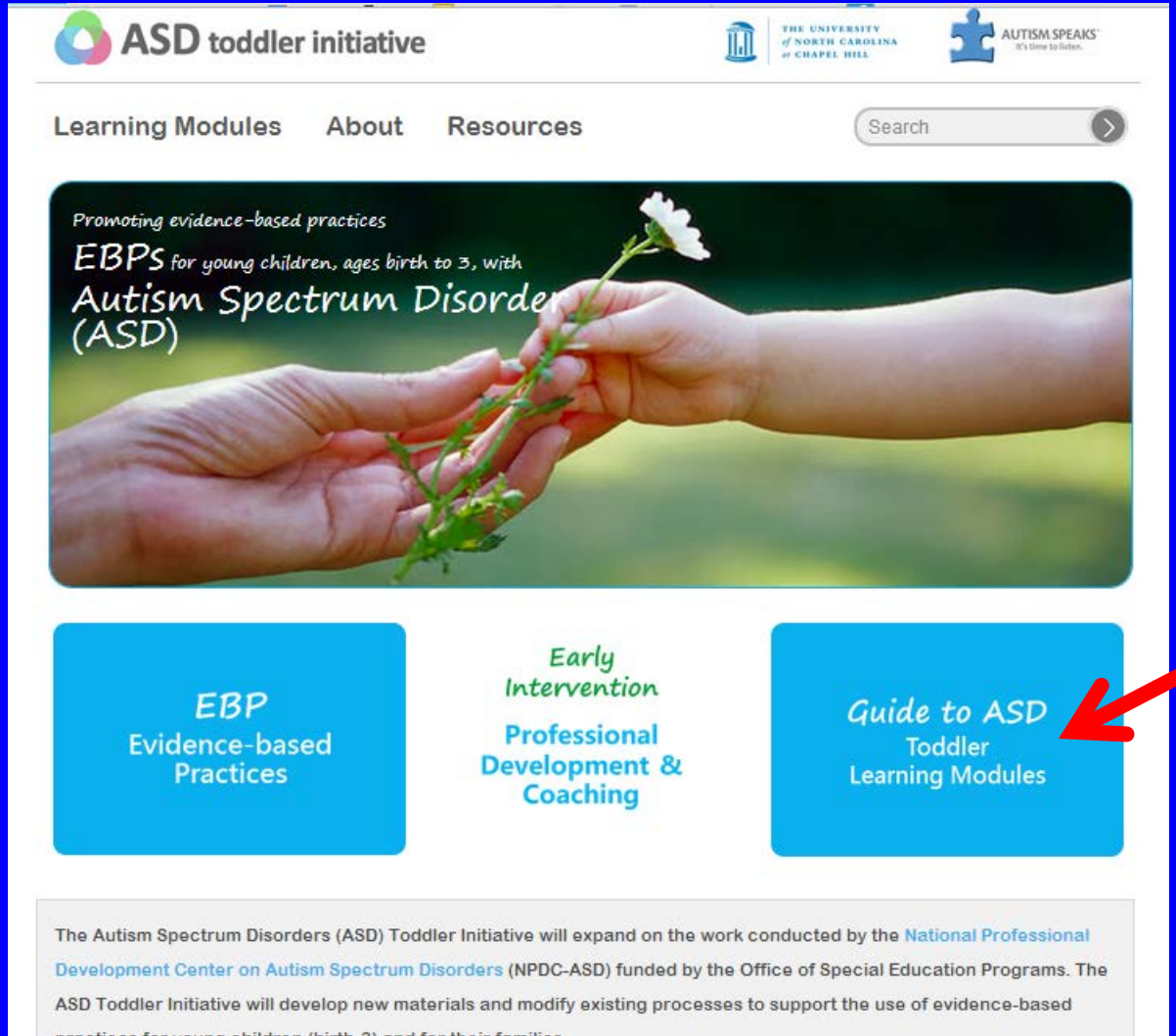


SELF LEARNING MODULES FOR TODDLERS!

NPDC-ASD Early Start Website

http://asdtoddler.fpg.unc.edu

www.captain.ca.gov



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SELF LEARNING MODULES FOR TODDLERS!

(Young Children Birth to 3)

http://asdtoddler.fpg.unc.edu

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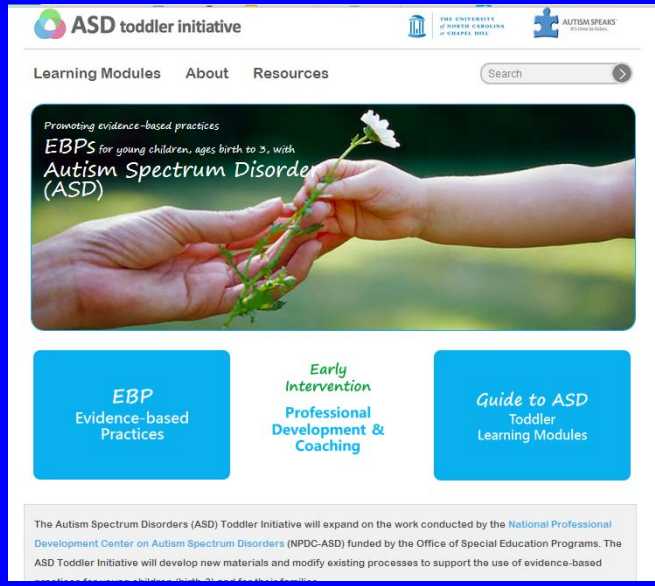
6 Toddler Modules Available as of 11/3/15

- Prompting
- Naturalistic Instruction
- Pivotal Response
- Functional Behavior Assessment
- Reinforcement
- Video Modeling



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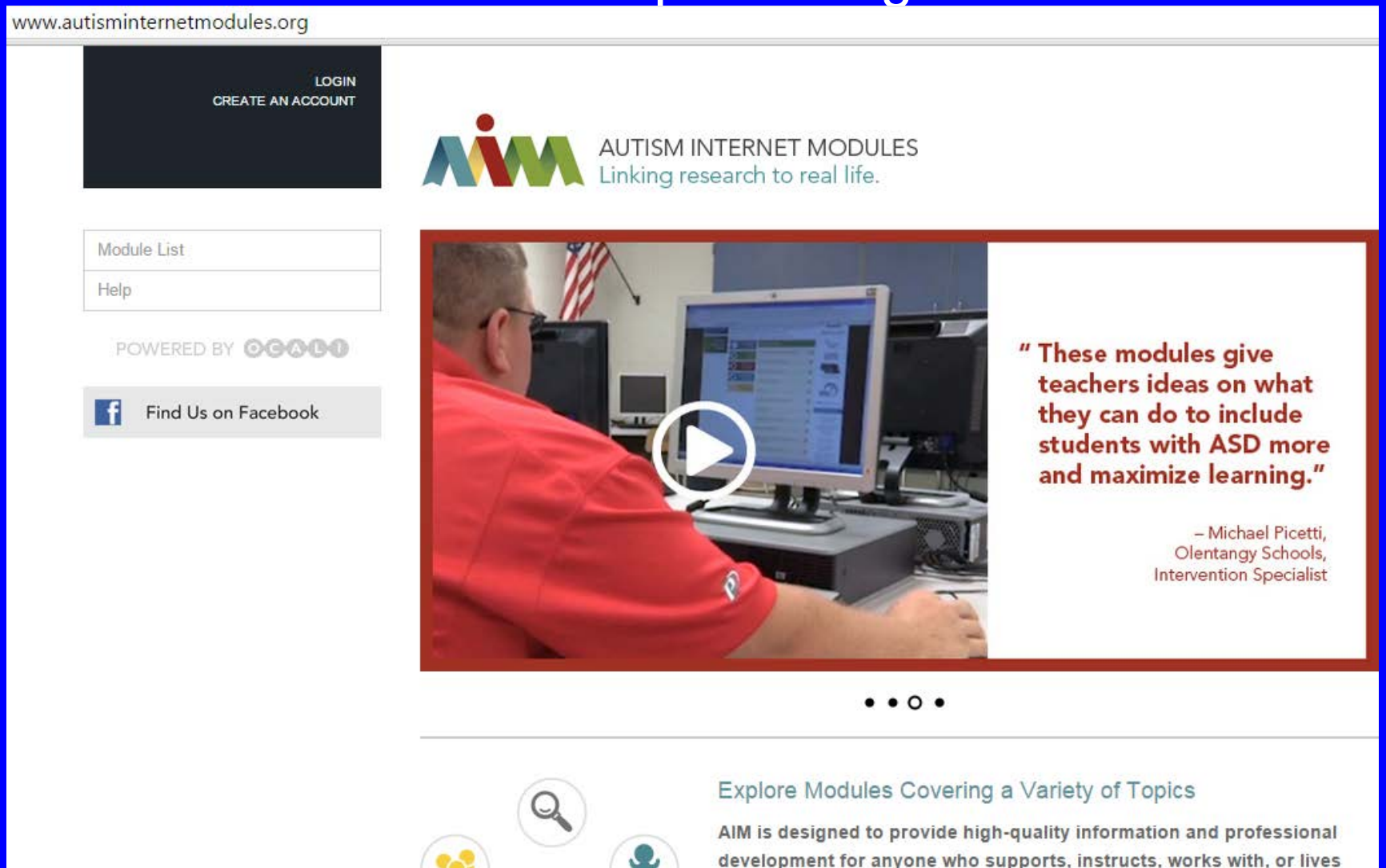
YET MORE SELF LEARNING MODULES ON EBPs

Autism Internet Modules

www.autisminternetmodules.org

www.captain.ca.gov



Autism Internet Modules
www.autisminternetmodules.org

Online learning modules includes information on:

- Evidence-based practices and interventions
- Recognizing and understanding behaviors
- Assessment and identification of ASDs
- Transition to adulthood and employment

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45 Autism Internet Modules so far….

25 more on the way!

- Antecedent-Based Interventions (ABI)
- ASD-4-EI: What Early Interventionists Should Know
- Assessment for Identification
- Autism and Medication
- Autism and the Biopsychosocial Model: Body, Mind, and Community
- Cognitive Differences
- Comprehensive Program Planning for Individuals With Autism Spectrum Disorders
- Computer-Aided Instruction
- Customized Employment
- Differential Reinforcement
- Discrete Trial Training
- Extinction
- Functional Behavior Assessment
- Functional Communication Training
- Home Base
- Language and Communication
- Naturalistic Intervention
- Overview of Social Skills Functioning and Programming
- Parent-Implemented Intervention
- Peer-Mediated Instruction and Intervention (PMII)
- Picture Exchange Communication System (PECS)
- Pivotal Response Training (PRT)
- Preparing Individuals for Employment
- Prompting
- Reinforcement
- Response Interruption/Redirection
- Restricted Patterns of Behavior, Interests, and Activities
- Rules and Routines
- Screening Across the Lifespan for Autism Spectrum Disorders
- Self-Management
- Sensory Differences
- Social Narratives
- Social Skills Groups
- Social Supports for Transition-Aged Individuals
- Speech Generating Devices (SGD)
- Structured Teaching
- Structured Work Systems and Activity Organization
- Supporting Successful Completion of Homework
- Task Analysis
- The Employee with Autism
- The Incredible 5-Point Scale
- Time Delay
- Transitioning Between Activities
- Video Modeling
- Visual Supports

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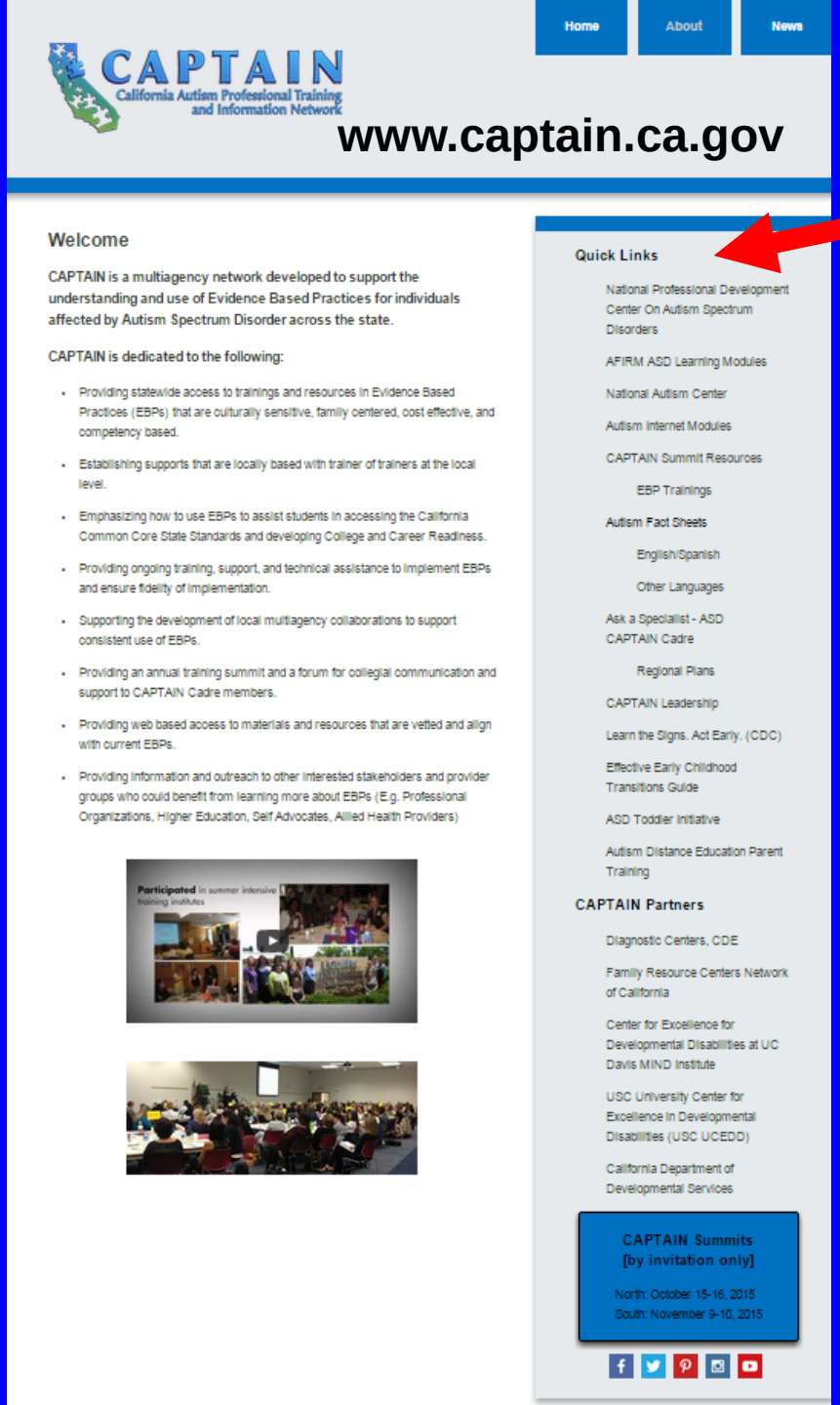

Use these **Quick Links** on the CAPTAIN website to access these EBP resources!

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2 Important ASD EBP Resources

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1. 27 Evidence Based Practices Briefs 2. AFIRM 3. EBPs for Young Children **Released March 2014**	1. National Standards Project Report-Phase NSP2 **Released April 2015**
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Released April 2, 2015!!!!

NEW!

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

www.captain.ca.gov

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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.

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The National Standards Project-Phase 2 (NSP2)

National Autism Center

Overall Findings for Individuals Under Age 22

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

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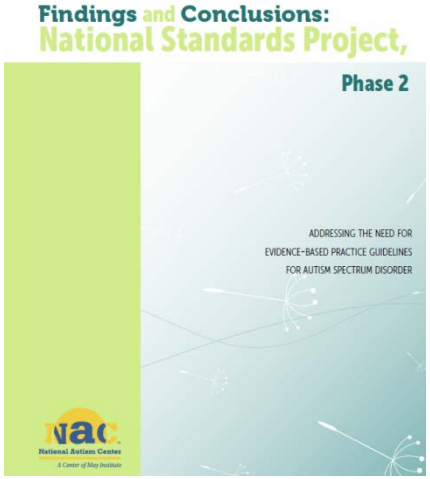
The following interventions have been identified as falling into the Established level of evidence:

- 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)



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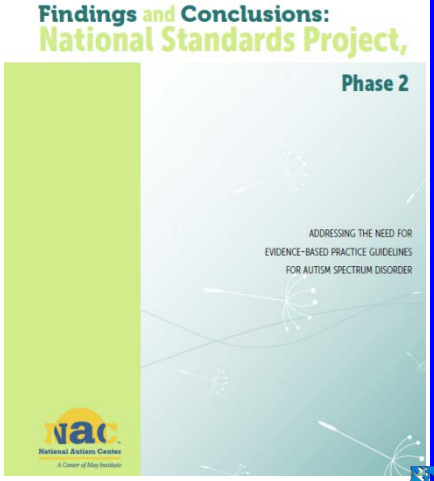
Emerging Interventions are those for which one or more studies suggest they may produce favorable outcomes. However, before we can be fully confident that the interventions are effective, additional high quality studies are needed that consistently show these interventions to be effective for individuals 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)



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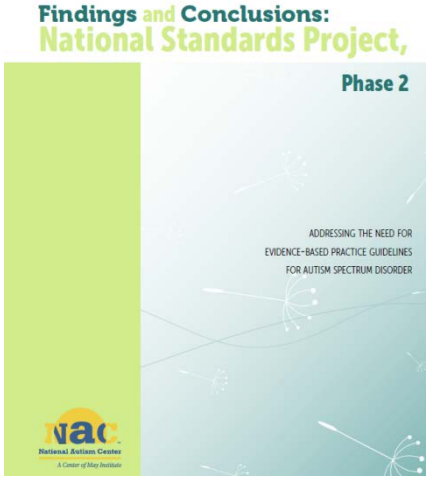
Unestablished Interventions are those for which there is little or no evidence in the scientific literature that allows us to draw firm conclusions about their effectiveness with individuals with ASD. There is no reason to assume these interventions are effective. Further, there is no way to rule out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



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Research Findings for Adults (22+ Years)

Only 1 Established for age 22+ years…

Established Interventions for Adults

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

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Another Reliable Resource for Older Individuals with ASD

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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.

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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

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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"

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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."

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CAPTAIN Recommends

- Use 27 EBPs from NPDC
- Use 14 Established Interventions for Ages 0-22 from NAC
- Use 1 Established Intervention for Ages 22+ from NAC

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2 Important ASD EBP Resources

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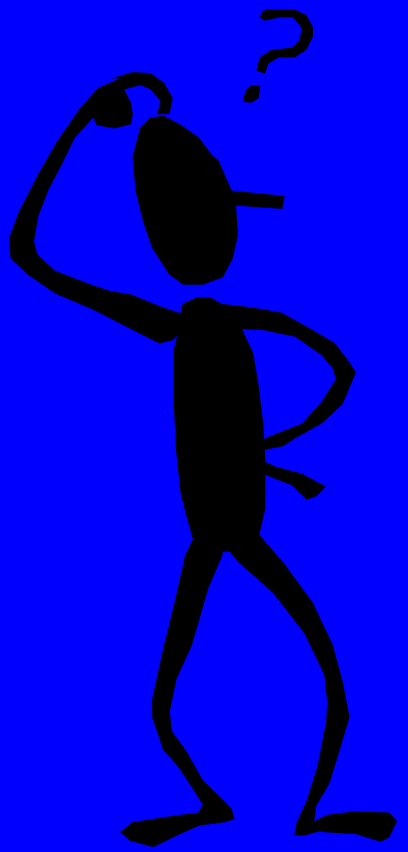
Why Are these EBP resources so important?



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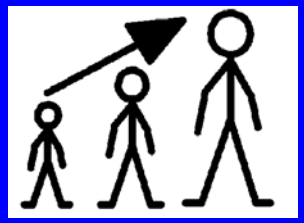
Knowing of these EBPs:

- 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



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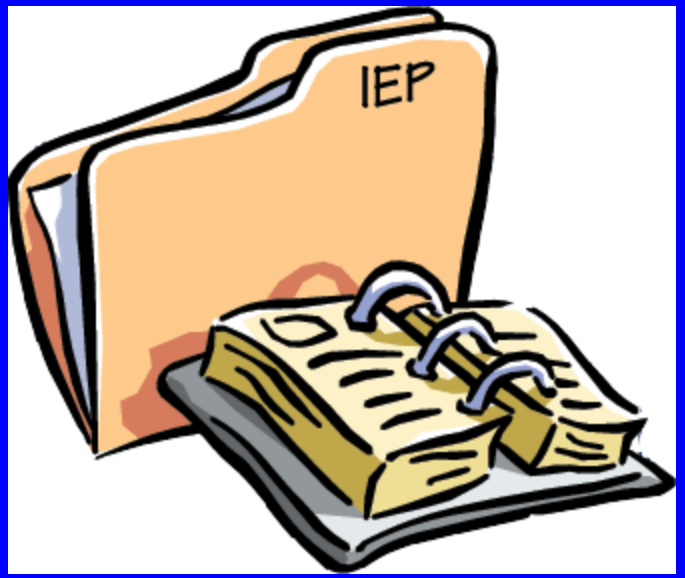
Implementing EBPs goes right along with……

The Individuals with Disabilities Education Act



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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;…….

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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;

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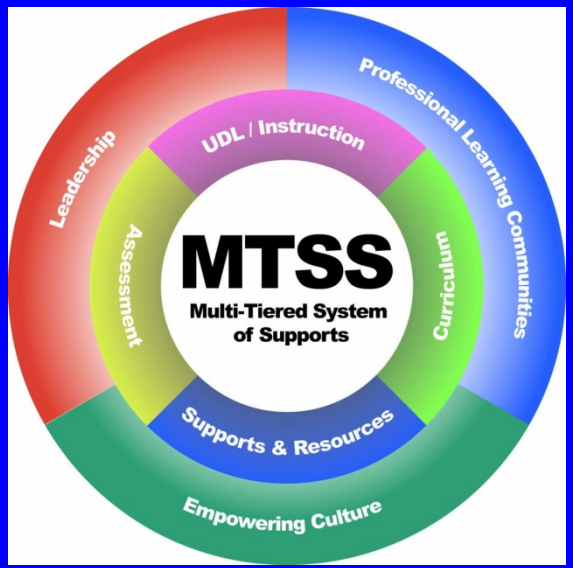
Implementing These EBPs goes right along with……

CDE's encouragement of the use of

Multi-tiered System of Support (MTSS)

as a framework for implementation of CCSS for the success of *all* students.



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Multi-tiered System of Supports (MTSS):

A Comprehensive Framework for Implementing the CCSS

www.mydigitalchalkboard.org

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- Instruction
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- Administrators

Topics

- English-Language Arts
- English Language Developmer
- History-Social Science
- Science
- Mathematics
- Visual Arts & Performing Arts
- Foreign Languages
- Health & Physical Education

Displaying **1-20** of **53** development contents

1 2 3 >

VIEWING STYLES: **LIST** GALLERY

TITLE | DATE CREATED | VIEWS | FAVORITES | RELEVANCE

Multi-tiered System of Supports: A Comprehensive Framework for Implementing the California Common Core State Standards

Views: 10683
Favorites: 33

Grades: No grades selected. **Subjects:** No subjects selected.

Contributor: California Common Core State Standards: Professional Learning Modules

A Deeper Dive into the California English Language Development Standards

Views: 2413
Favorites: 75

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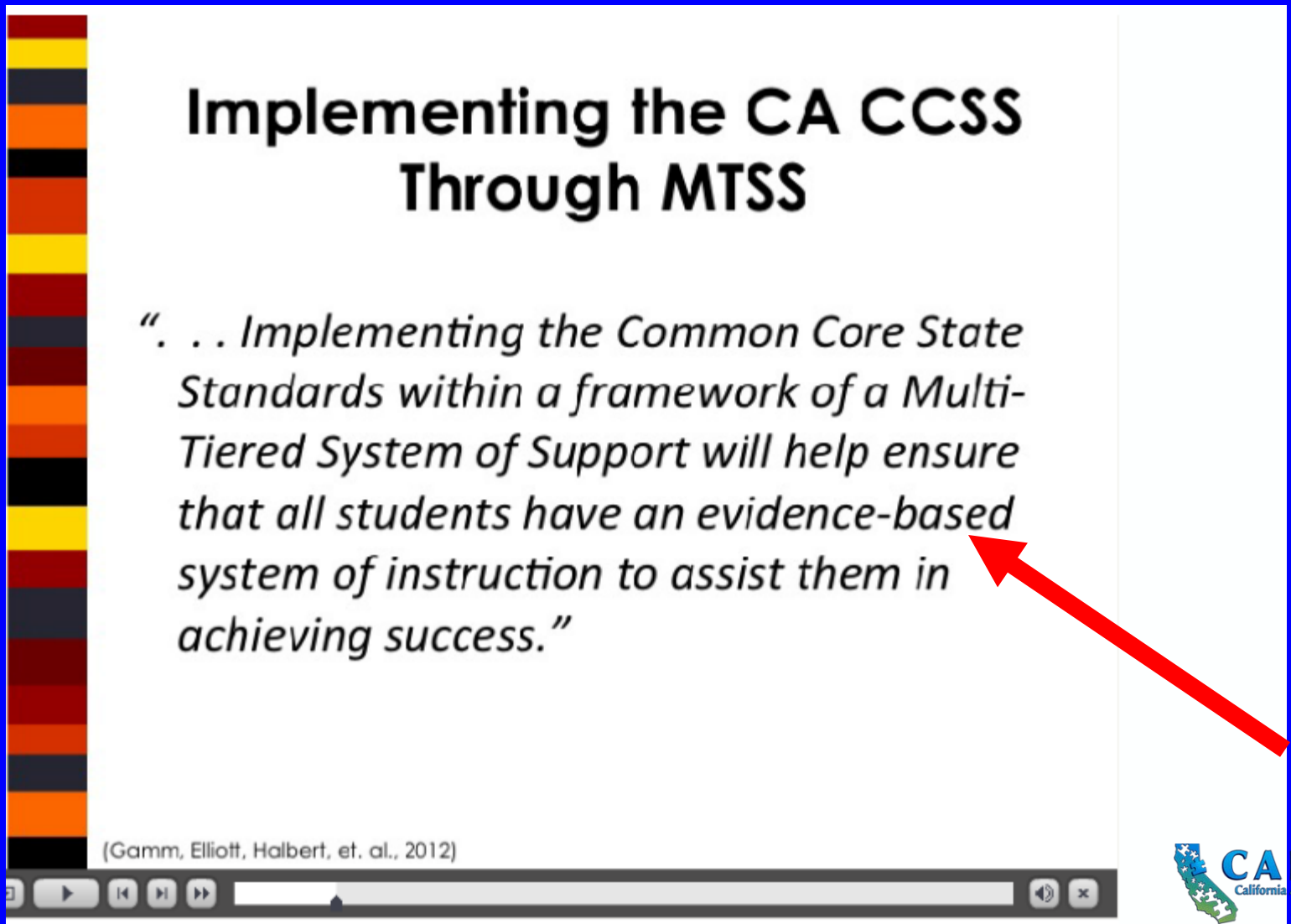
Multi-tiered System of Supports (MTSS):
A Comprehensive Framework for Implementing the CCSS
www.mydigitalchalkboard.org



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A Comprehensive Framework for Implementing CCSS
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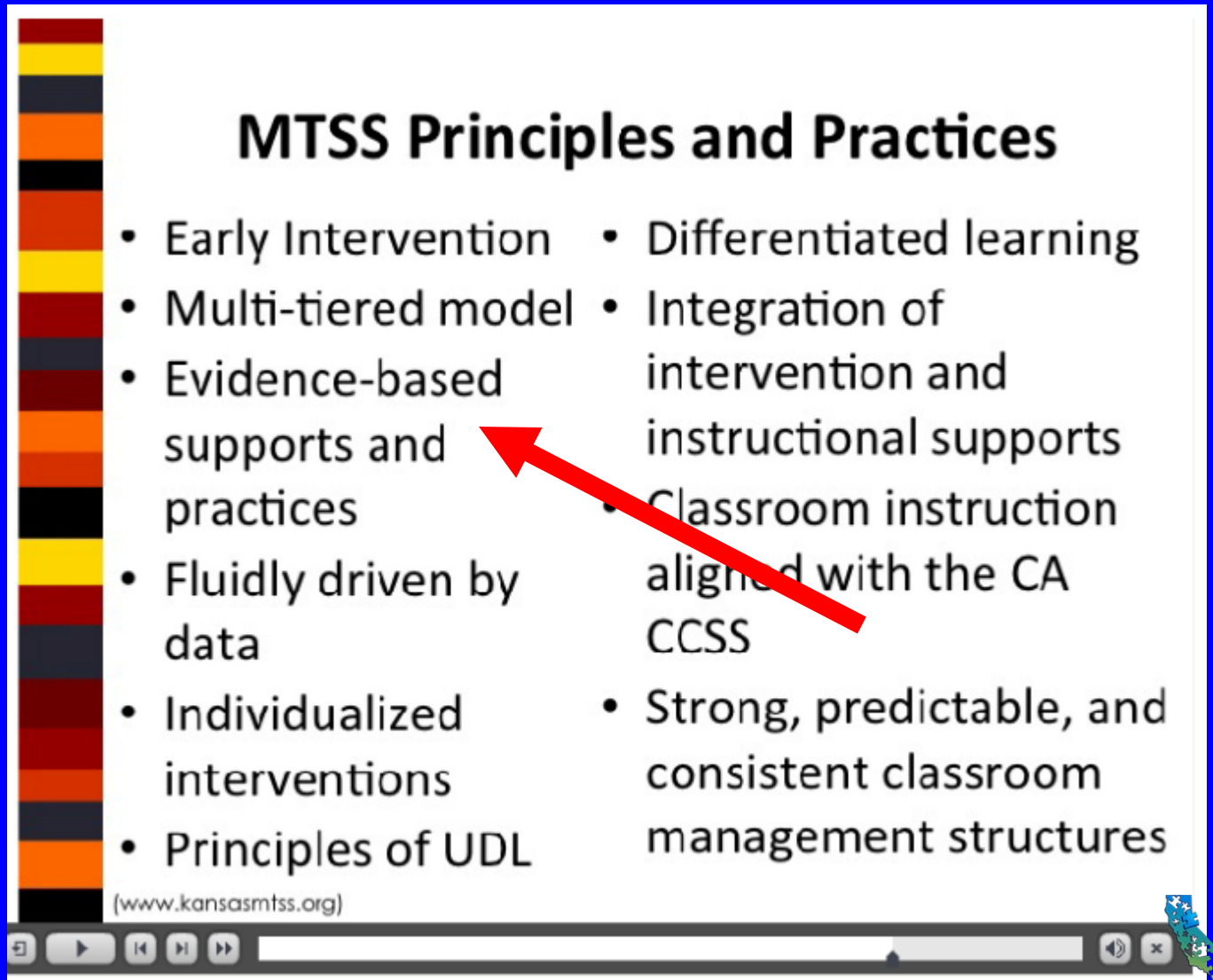

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Implementing EBPs Aligns With CCSS Instruction and UDL

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

Implementing EBPs goes right along with 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…"

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Implementing EBPs goes right along with the 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…"

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Implementing EBPs goes right along with 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. “

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Teaching About EBPs….

- Requires adherence to best practices in professional development to ensure fidelity of implementation of those EBPs……
- All CAPTAIN Cadre are TRAINERS
- CAPTAIN requires all Cadre members to conduct training and disseminate information about ASD and EBPs
- Let’s look at what research says about training practices

Training Outcomes Related to Training Components

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

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

Effective Training Should Include

- Presentation that is well balanced between didactic lecture and visual media to support information sharing
- Should include some form of demonstration and/or discussions
- Should include role playing and/or hands on practice

If Application is Goal

- Administrative support is key
- Collecting and using data is critical
- Coaching is required

"Children and families cannot benefit from evidence-based practices that they do not experience"

-Fixsen, NIRN, 2006

nirn National Implementation Research Network

http://implementation.fpg.unc.edu/

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CAPTAIN Website

www.captain.ca.gov

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

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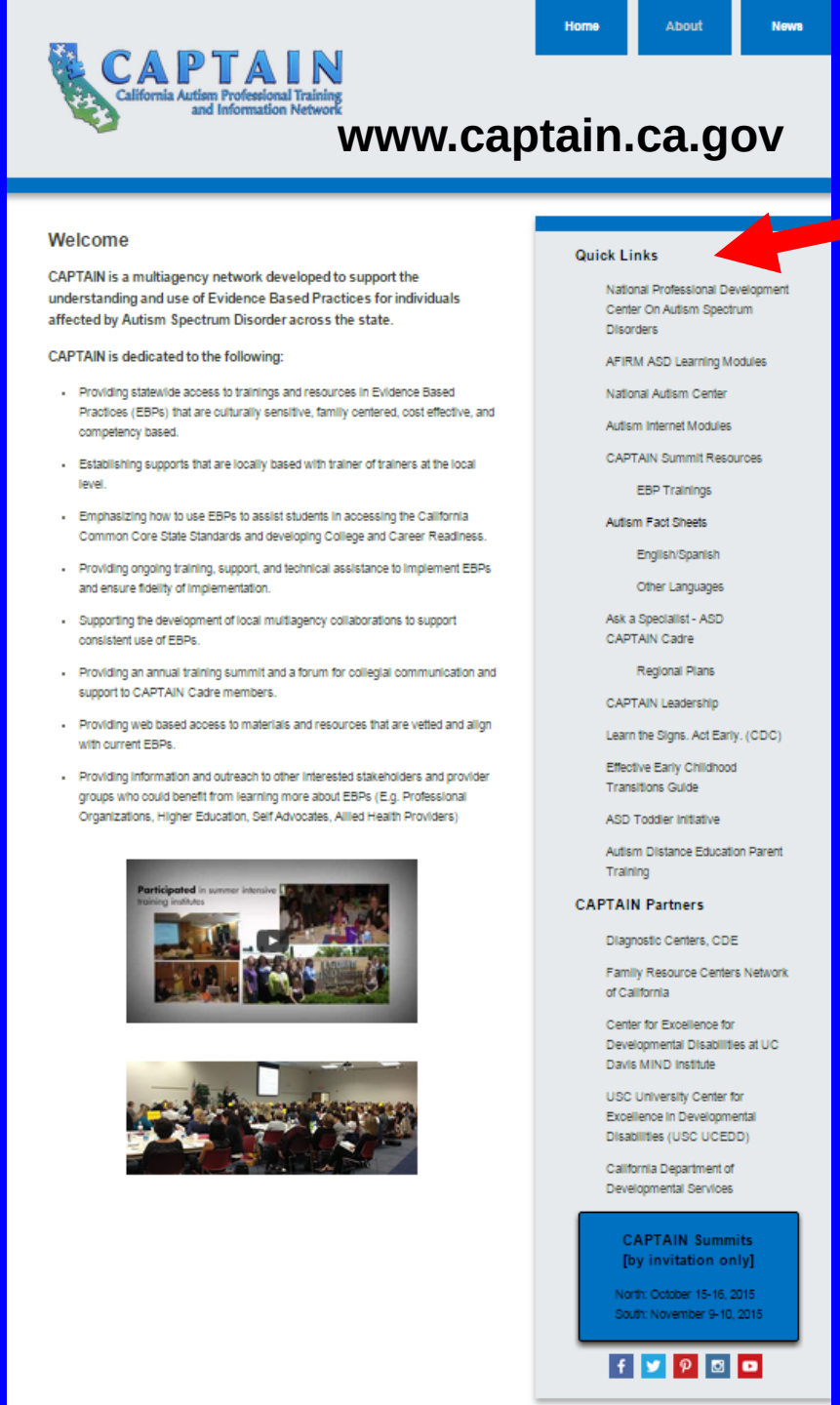

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What are Evidence-Based Practices (EBPs) for ASD?

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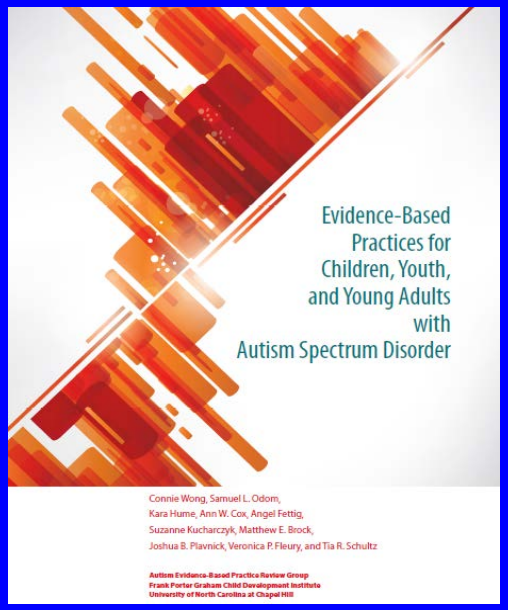

Ann England, M.A., CCC-SLP-L
October 2015
Assistant Director, Diagnostic Center, CDE * CAPTAIN Leader

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END