2018 Inclusion Collaborative State Conference

How to Support Individuals with Autism Spectrum Disorder (ASD) in Inclusive Educational Settings
Thursday, October 25, 2018, 2:45-4:15PM

Amy Andersen, M.A.
CAPTAIN Leader
Executive Director
Special Services, El Dorado County Office of Education

Ann England, M.A., CCC-SLP-L
Co-Coordinator CAPTAIN
Assistant Director
Diagnostic Center, Northern CA
California Department of Education
Why are we talking about ASD today?

Because the number of individuals with ASD is increasing every year!
CDC 1:59
### Challenge:
Significant Increases in ASD in California Public Schools

#### Special Education Enrollment by Autism as Primary or Secondary Disability

<table>
<thead>
<tr>
<th>Reporting Cycle</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 2010</td>
<td>69,022</td>
</tr>
<tr>
<td>December 2011</td>
<td>75,507</td>
</tr>
<tr>
<td>December 2012</td>
<td>82,855</td>
</tr>
<tr>
<td>December 2013</td>
<td>89,509</td>
</tr>
<tr>
<td>December 2014</td>
<td>96,036</td>
</tr>
<tr>
<td>December 2015</td>
<td>102,784</td>
</tr>
<tr>
<td>December 2016</td>
<td>110,486</td>
</tr>
<tr>
<td>December 2017</td>
<td>112,318 Students</td>
</tr>
</tbody>
</table>

14.5 Percent of Total Special Education Population

Students with Disabilities CDE
Total Population for Ages 0 to 22: 754,337
Source: CASEMIS December 2016
Challenge:
Need to Improve Academic Performance for Students With ASD

Reading: 56% not met
Math: 63% not met
CAPTAIN 2018 Summit
“Reading Development and Instructional Practices for School-Aged Children and Adolescents with Autism”
Presenter: Nancy McIntyre, Ph.D.

www.captain.ca.gov
click on Resources
UC Davis 2015 Summer Institute
“Development And Instructional Practices For Students With High Functioning Autism”
Presenter: Emily Solari, MA, PhD

Read this Article!

Meeting the Common Core State Standards for Students with Autism: The Challenge for Educators

Teaching Exceptional Children, Vol. 45, No. 3, pp-6-13 Jan/Feb 2013
Council for Exceptional Children
www.cec.sped.org

<table>
<thead>
<tr>
<th>Sampling of CCSS in ELA</th>
<th>Classroom Behaviors</th>
<th>Evidence-Based Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ask and answer questions to seek help, obtain information, or clarify something that is not understood. K.3 Speaking and Listening</td>
<td>Student may not be able to initiate asking for help or clarification. May sit and do nothing. May try to escape or avoid the task.</td>
<td>Naturalistic intervention Peer-mediated instruction and intervention</td>
</tr>
<tr>
<td>Describe how characters in a story respond to major events and challenges. 2.3 Reading Literature</td>
<td>Student may struggle to answer correctly in response to questions about character perspectives and responses.</td>
<td>Social Narratives of Social Stories and Comic Strip Conversations</td>
</tr>
<tr>
<td>Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. 5.3 Writing</td>
<td>Student may have difficulty separating fact from fantasy. Student may have difficulty initiating writing tasks or knowing what to write about and be unable to retrieve language needed to write in a sequential organized fashion.</td>
<td>Prompting Visual supports</td>
</tr>
<tr>
<td>Analyze how particular lines of dialogues or incidents in a story or drama propel the actions, reveal aspects of a character, or provoke a decision. 8.3 Reading: Literature</td>
<td>Students have difficulty determining how dialogue or incidents in a story propel a character’s actions</td>
<td>Social Narratives of Social Stories and Comic Strip Conversations</td>
</tr>
</tbody>
</table>
Challenge:
Need to Improve Post School Outcomes for Students With ASD

- Enrolled in Higher Education: 53%
- Post Secondary Education or Training: 16%
- Competitively Employed: 10%
- No Higher Education and No Employment: 20%
- Other Employment: 1%

Total Students with Autism as Primary or Secondary Disability
Source: CASEMIS June 2017, Table D
Students that exit from prior years

California Department of Education
Approximately 1 in 4 young adults with ASD were socially isolated, i.e. never saw or talked with friends and were never invited to social activities within the past year.

27% percent of adolescents engaged in some type of wandering behavior; 47% were victims of bullying in HS.

One in five young adults with ASD ever lived independently (away from parents w/o supervision) between high school and early 20s.

Only 42% had a job.

Only 58% of youth had a transition plan by the federally required age of 16.

http://drexel.edu/now/archive/2015/April/Autism-Indicators-Young-Adult-Transition/
Challenge: Need to Improve Access to LRE

California Students with Autism by Least Restrictive Environment

- Inside Regular Class 50% or More of the Day: 50.11%
- Inside Regular Class Less than 40% of the Day: 46.83%
- Homebound/Hospital: 0.19%
- Parentally Placed in Private Schools: 0.46%
- Residential Facility: 0.07%
- Separate School: 6.72%
- Corrected Facilities: 0.01%

Total Students with Autism as of Primary or Secondary Disability for Ages 0 to 22: 110,498
Source: CASEMS December 2018
National Technical Assistance Center on Transition
www.transitionta.org

Researched and published a summary of in-school factors that were predictors of Post-School Success
Inclusion is one of the top four predictors of post school success!!!!
Challenge:
How Do We Align All of These Initiatives?
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 Vision

Develop a Statewide Training and Technical Assistance Network with a focus on Evidence-Based Practices for individuals impacted by ASD inclusive of stakeholder agencies who will disseminate information at a Local Level.
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 (families and providers of services)

**Goal 3:** Increase interagency collaborations to leverage resources and standardize a process for using EBPs
So, What Can We Do To Support Students with ASD in Inclusive Educational Settings?
Use Evidence Based Practices!!!!

C.A.P.T.A.I.N.
California Autism Professional Training and Information Network

www.captain.ca.gov
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
## IMPORTANT EBP RESOURCES

<table>
<thead>
<tr>
<th>National Professional Development Center (NPDC)</th>
<th>National Autism Center (NAC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 27 Evidence Based Practices</td>
<td>1. National Standards Project Report-Phase 2 NSP2</td>
</tr>
<tr>
<td>2. AFIRM</td>
<td>Released April 2015</td>
</tr>
<tr>
<td>3. CSESA</td>
<td></td>
</tr>
<tr>
<td>4. EBPs for Young Children</td>
<td>Released March 2014</td>
</tr>
</tbody>
</table>

**http://autismpdc.fpg.unc.edu**  
**http://afirm.fpg.unc.edu**  
**http://csesa.fpg.unc.edu**  
**http://asdtoddler.fpg.unc.edu**  
**www.captain.ca.gov**  

**www.nationalautismcenter.org**  
**www.captain.ca.gov**
NPDC - ASD Identified EBPs:

“Focused intervention practices that have substantial evidence for effectiveness in promoting positive outcomes for learners with ASD”
<table>
<thead>
<tr>
<th>Evidence Based Practice and Abbreviated Definition</th>
<th>Evidence by Developmental Domain and Age (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antecedent Based Intervention (ABI): Arrangement of events providing an interfering behavior to prevent or reduce occurrence</td>
<td></td>
</tr>
<tr>
<td>Cognitive Behavioral Intervention (CBI): Instruction on cognitive processes leading to changes in behavior</td>
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<tr>
<td>Differential Reinforcement of Alternative, Incompatible, or Other Behavior (DRA/I/O): Consequences provided for desired behaviors that reduce the occurrence of interfering behaviors</td>
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<tr>
<td>Discrete Trial Teaching (DTT): Instructional process of repeated trials, consisting of instruction, response, and consequence</td>
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</tr>
<tr>
<td>Exercise (EC): Antecedent based physical exertion to reduce interfering behaviors or increase appropriate behaviors</td>
<td></td>
</tr>
<tr>
<td>Extinction (EXT): Removal of existing reinforcement in order to reduce an interfering behavior</td>
<td></td>
</tr>
<tr>
<td>Functional Behavior Assessment (FBA): Systematic protocol designed to identify contingencies that maintain or interfere behavior</td>
<td></td>
</tr>
<tr>
<td>Function Communication Training (FCT): Replacement of an interfering behavior with communication that accomplishes the same function</td>
<td></td>
</tr>
<tr>
<td>Modeling (MD): Demonstration of a desired behavior that results in skill acquisition through learner imitation</td>
<td></td>
</tr>
<tr>
<td>Naturalistic Intervention (NI): Intervention strategies that occur with the learner's typical settings and routines</td>
<td></td>
</tr>
<tr>
<td>Parent-Implemented Intervention (PII): Parent-delivered intervention learned through a structured parent training program</td>
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</tr>
<tr>
<td>Peer-Mediated Instruction and Intervention (PMMI): Typically developing peers are taught strategies that increase social learning opportunities in natural environments</td>
<td></td>
</tr>
<tr>
<td>Picture Exchange Communication System (PECS): Systematic 4 phase protocol teaching the exchange of pictures between communicative partners</td>
<td></td>
</tr>
</tbody>
</table>

www.captain.ca.gov
<table>
<thead>
<tr>
<th>Evidence Based Practice and Abbreviated Definition</th>
<th>Evidence by Developmental Domain and Age (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prompting (PP): Verbal, gestural, or physical assistance that supports skill acquisition.</td>
<td>0</td>
</tr>
<tr>
<td>Reinforcement (R+): A response occurring after a behavior resulting in an increased likelihood of future recurrence of the behavior.</td>
<td>0</td>
</tr>
<tr>
<td>Response Interruption/Redirection (RIR): Use of praise or distraction during an interfering behavior that diverts attention and reduces the behavior.</td>
<td>0</td>
</tr>
<tr>
<td>Scripting (S): A verbal or written model of a skill or situation that is practiced before use in context.</td>
<td>0</td>
</tr>
<tr>
<td>Self Management (SM): Instruction on discrimination between appropriate and inappropriate behaviors and accurate self-monitoring and rewards of behaviors.</td>
<td>0</td>
</tr>
<tr>
<td>Social Narratives (SN): Descriptions of social situations with examples of appropriate responding.</td>
<td>0</td>
</tr>
<tr>
<td>Social Skills Training (SST): Direct instruction on social skills with rehearsal and feedback to increase practice pair interaction.</td>
<td>0</td>
</tr>
<tr>
<td>Structured Play Group (SPG): Adult lead small group activities that include typically developing peers and are programmed to support performance.</td>
<td>0</td>
</tr>
<tr>
<td>Task Analysis (TA): The process of breaking a skill into small steps that are systematically chained together.</td>
<td>0</td>
</tr>
<tr>
<td>Technology-Assisted Instruction and Intervention (TAII): Instruction using technology as a critical feature.</td>
<td>0</td>
</tr>
<tr>
<td>Time Delay (TD): Delays a prompt during a practice opportunity in order to fade the use of prompts.</td>
<td>0</td>
</tr>
<tr>
<td>Video Modeling (VM): A video recording of a targeted skill that is viewed to assist in learning.</td>
<td>0</td>
</tr>
<tr>
<td>Visual Support (VS): Visual display that supports independent skill use.</td>
<td>0</td>
</tr>
</tbody>
</table>

www.captain.ca.gov
27 EBPs Matrix
Available on the CAPTAIN Website
English and Spanish and German!
www.captain.ca.gov
High Quality Self Learning 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

[Website link](http://afirm.fpg.unc.edu/afirm-modules)
Important AFIRM Learning Module!
How to Select an EBP
http://afirm.fpg.unc.edu/selecting-ebp
AFIRM Resources

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

Keyword Search

Browse by Module
- Antecedent-based Intervention
- Exercise
- Functional Behavior Assessment
- Modeling
- Peer-Mediated Instruction and Intervention
- Picture Exchange Communication System
- Prompting
- Reinforcement
- Self-management
- Social Narratives
- Social Skills Training
- Task Analysis
- Time Delay
- 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 Resources
Visual Supports (VS)
---Implementation Checklist---

**Before you start:**
- Have you...
  - Identified the behavior?
  - Collected baseline data through direct observation?
  - Established a goal or outcome that clearly states when the behavior will occur, what the target skill is, and how the team will know when the skill is mastered.
  - If the answer to any of these is "no", refer to the "Selecting EBPs" section on the website.

<table>
<thead>
<tr>
<th>Step 1: Planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Identify visual supports needed to acquire or maintain target skills</td>
</tr>
<tr>
<td>2. Develop/prepare visual support for learner based on individualized assessments</td>
</tr>
<tr>
<td>3. Organize all needed materials</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step 2: Using</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Teach learner how to use visual support</td>
</tr>
<tr>
<td>- Boundaries</td>
</tr>
<tr>
<td>- Introduce boundary to learner</td>
</tr>
<tr>
<td>- Use modeling to teach learner to stay within boundary</td>
</tr>
<tr>
<td>- Use consequences to encourage learner to stay within boundary</td>
</tr>
<tr>
<td>- Use corrective feedback when learner does not stay within boundary</td>
</tr>
<tr>
<td>- Cue</td>
</tr>
<tr>
<td>- Show learner visual cue</td>
</tr>
<tr>
<td>- Stand behind learner when prompting use of visual cue</td>
</tr>
<tr>
<td>- Use concise, relevant words/terms while teaching visual cue</td>
</tr>
<tr>
<td>- Assist learner in participating in activity/event with visual cue</td>
</tr>
<tr>
<td>- Schedule</td>
</tr>
<tr>
<td>- Stand behind learner when prompting use of visual schedule</td>
</tr>
<tr>
<td>- Place schedule information in learner's hand</td>
</tr>
<tr>
<td>- Use concise, relevant words/terms</td>
</tr>
<tr>
<td>- Assist learner in getting to designated activity/location, and prompt</td>
</tr>
<tr>
<td>- Ensure learner remains in scheduled location until prompted to use</td>
</tr>
<tr>
<td>- Repeat steps until learner is able to complete the sequence independently across activities/locations</td>
</tr>
<tr>
<td>- Use visual supports consistently and across settings</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step 3: Monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Collect data on target behaviors and use of visual supports (independence during use and progress through forms/types of supports)</td>
</tr>
<tr>
<td>3.2 Determine next steps based on learner progress</td>
</tr>
</tbody>
</table>

*Checklist ensures fidelity of EBP implementation*
AFIRM Certificate Available

CEUs Count for:
BCBAs Type 2 &
SLPs ASHA CCCs
SELF LEARNING MODULES FOR TODDLERS!
NPDC-ASD Early Start Website
http://asdtoddler.fpg.unc.edu
Resource for Older Individuals with ASD

http://cresa.fpg.unc.edu/

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

CSESA Launches in 30 Schools
CSESA is off and running! The CSESA research team is collaborating with 30 high schools across the country in the 2014-2015 school year.

More Center Activities... Read more »
Presentation 1:

Characteristics and Practices for Challenging Behavior

http://csesa.fpg.unc.edu/

*NOTE: If you are having difficulty with the video links embedded as part of the presentation, link to the 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).

Presentation 2:

Strategies for Classroom Success and Effective Use of Teacher Supports
<table>
<thead>
<tr>
<th>Antecedent-based interventions</th>
<th>Pivotal response training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive behavioral intervention</td>
<td>Prompting</td>
</tr>
<tr>
<td>Differential reinforcement</td>
<td>Reinforcement</td>
</tr>
<tr>
<td>Discrete trial training</td>
<td>Response interruption/redirection</td>
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<td>Exercise</td>
<td>Scripting</td>
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<tr>
<td>Extinction</td>
<td>Self-management</td>
</tr>
<tr>
<td>Functional behavior assessment</td>
<td>Social narratives</td>
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<td>Functional communication training</td>
<td>Social skills training</td>
</tr>
<tr>
<td>Modeling</td>
<td>Structured play groups</td>
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<td>Naturalistic interventions</td>
<td>Task analysis</td>
</tr>
<tr>
<td>Parent-implemented intervention</td>
<td>Technology-aided intervention/instruction</td>
</tr>
<tr>
<td>Peer-mediated instruction/intervention</td>
<td>Time delay</td>
</tr>
<tr>
<td>Picture Exchange Communication System™</td>
<td>Video modeling</td>
</tr>
<tr>
<td></td>
<td>Visual supports</td>
</tr>
</tbody>
</table>
Challenge:
How Do We Align All of These Initiatives?
Using Universal Design for Learning (UDL) Frameworks & Evidence Based Practices for Autism

Why?

- There are 104,573 students with ASD in CA Public Schools and that number is steadily growing (Lind, 2017).
- More than half of students with ASD have cognition in the average range (CSC, 2014).
- 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:

- Visual Supports
- Technology Aided Instruction
- Video Modeling

Flexibility in Presentation

- Reinforcement Systems
- Antecedent Based Interventions
- Peer Mediated Instruction

Flexibility in Expression

- Visual Supports
- Technology Aided Instruction
- PECS/MAAC

To learn more about the EBPs for Autism visit: www.captain.ca.gov
or participate in the free online learning modules at http://atirm.f aguars.edu/
Find resources and learn more about UDL through CAST http://www.cast.org

CAPTAIN, UDL & ASD
www.captain.ca.gov
Alignment of EBPs for ASD and EBPs for Classroom Management/Behavior

<table>
<thead>
<tr>
<th>EBPs for Behavior</th>
<th>EBPs for ASD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effectively design the physical environment of the classroom to maximize student success.</td>
<td>Antecedent Based Interventions</td>
</tr>
<tr>
<td>Develop and teach positive behavioral models.</td>
<td>Visual Supports</td>
</tr>
<tr>
<td>Tailor instruction and activities to meet the needs of all students.</td>
<td>Task Analysis</td>
</tr>
<tr>
<td>Establish a continuum of strategies to acknowledge appropriate behavior.</td>
<td>Reinforcement</td>
</tr>
<tr>
<td>Use peer mediation and positive reinforcement to teach students about social skills.</td>
<td>Antecedent Based Interventions</td>
</tr>
<tr>
<td>Establish a continuum of strategies to respond to inappropriate behavior.</td>
<td>Social Skills Training</td>
</tr>
<tr>
<td>Use student team appropriate behaviors</td>
<td>Functional Behavior Assessment</td>
</tr>
<tr>
<td>Determine the function of the behavior to select a FEBA (Functional Equivalents Behavior Assessment).</td>
<td>Functional Communication Training</td>
</tr>
<tr>
<td>Essential skills and behavioral skills are taught and recognized in the natural context.</td>
<td>Naturalistic Instruction</td>
</tr>
<tr>
<td>Provide a range of evidence-based practices that promote academic engagement in the classroom.</td>
<td>Peer-mediated instruction</td>
</tr>
</tbody>
</table>

www.captain.ca.gov

What is Reinforcement?

• Describes a relationship between a behavior and its consequences

• If a behavior increases in probability when a consequence is delivered, that consequence is considered a REINFORCER
Tertiary

Supplementary

A Few Can Benefit
Often Done 1:1

Some Can Benefit
Often Done in Small Group Context

Universal

All Can Benefit
Typically Done in Large Group Context

Some Can Benefit
Often Done in Small Group Context

A Few Can Benefit
Often Done 1:1

All Can Benefit
Typically Done in Large Group Context
EBPs:
Reinforcement
Self Management
Visual Supports
Why use reinforcement?

• To increase desired behaviors and skills:
  • To teach a new skill (e.g., asking for help; toilet training)
  • Increase on-task behavior (e.g., increase number of math problems completed; increase time remaining in seat)
  • To teach a positive replacement behavior for an unwanted behavior (e.g. using inside voice in class)
  • Increase appropriate behaviors (e.g., walking in class instead of running)

• It’s used in many educational circumstances, not only with students with ASD

• We all work for reinforcement!
In the table below, the outcomes identified by the evidence base are shown by age of participants.

<table>
<thead>
<tr>
<th>Early Intervention</th>
<th>Preschool</th>
<th>Elementary</th>
<th>Middle</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>(0-2 years)</td>
<td>(3-5 years)</td>
<td>(6-11 years)</td>
<td>(12-14 years)</td>
<td>(15-22 years)</td>
</tr>
<tr>
<td>Social</td>
<td>Social</td>
<td>Social</td>
<td>Social</td>
<td>Social</td>
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<tr>
<td>Communication</td>
<td>Communication</td>
<td>Communication</td>
<td>Communication</td>
<td>Communication</td>
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<tr>
<td>Joint Attention</td>
<td>Joint Attention</td>
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<td>Joint Attention</td>
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<tr>
<td>Behavior</td>
<td>Behavior</td>
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<td>Behavior</td>
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<tr>
<td>School Readiness</td>
<td>School Readiness</td>
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<tr>
<td>Play</td>
<td>Play</td>
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<td>Play</td>
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<tr>
<td>Cognitive</td>
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<tr>
<td>Motor</td>
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<tr>
<td>Adaptive</td>
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<td>Adaptive</td>
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<tr>
<td>Vocational</td>
<td></td>
<td>Vocational</td>
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<tr>
<td>Academic</td>
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</tbody>
</table>
Positive and Negative Reinforcement

Positive = adding something following the behavior that increases future probability of the behavior (e.g. giving a reward)

Negative = removing something following the behavior that increases future probability of the behavior (e.g. do it right this time and I will let you out of doing the rest of them)
### Types of Consequences

<table>
<thead>
<tr>
<th></th>
<th>Positive (Give)</th>
<th>Negative (Take)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reinforcement</td>
<td>Increases Behavior</td>
<td>Increases Behavior</td>
</tr>
<tr>
<td>Punishment</td>
<td>Decreases Behavior</td>
<td>Decreases Behavior</td>
</tr>
<tr>
<td>Positive (Give)</td>
<td>Negative (Take)</td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td>----------------</td>
<td></td>
</tr>
<tr>
<td>Reinforcement</td>
<td>Computer Time</td>
<td></td>
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<tr>
<td></td>
<td>Homework Pass</td>
<td></td>
</tr>
<tr>
<td>Punishment</td>
<td>Extra Work</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Loss of Recess</td>
<td></td>
</tr>
</tbody>
</table>
Before Reinforcement
Provide visual picture, written, or oral instructions

Picture instructions

Written instructions

Assignment done, I would like to choose:

- 15 minutes to listen to music
- 10 minutes to play with trains
<table>
<thead>
<tr>
<th>TYPE OF INSTRUCTION</th>
<th>DEFINITION</th>
<th>EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PICTORIAL</td>
<td>Presents learner with a picture depicting the target skill.</td>
<td>Raise hand to ask for break.</td>
</tr>
<tr>
<td>WRITTEN</td>
<td>Provide learner with written instructions to use the target skill or behavior.</td>
<td><em>When you raise your hand and ask for a break, you can leave your seat.</em></td>
</tr>
<tr>
<td>VERBAL</td>
<td>Verbally telling learner what is expected of learner.</td>
<td>“You have to stay in your seat and raise your hand, then you can take a break.”</td>
</tr>
</tbody>
</table>

Autism Focused Intervention Resources & Modules (AFIRM)
Token Economy

• When students are given a tangible “token” (sticker, star, poker chip) to exchange for other desired items

• Tokens are given or earned when desired behavior or skill is demonstrated (or approximated)
Token Economy Examples

One Example of a Token Economy

A chosen reinforcer is placed here

I’m working for

Earned tokens are placed into these spaces

Use your points to buy treats:

<table>
<thead>
<tr>
<th>treat</th>
<th>points</th>
</tr>
</thead>
<tbody>
<tr>
<td>candy</td>
<td>5</td>
</tr>
<tr>
<td>ipod break</td>
<td>8</td>
</tr>
<tr>
<td>break area</td>
<td>5</td>
</tr>
<tr>
<td>ipod break</td>
<td>10</td>
</tr>
<tr>
<td>computer</td>
<td>10</td>
</tr>
<tr>
<td>coloring break</td>
<td>8</td>
</tr>
</tbody>
</table>

= 1 point
Types of Reinforcers

• **Primary**: Needs it for survival. Is reinforcing at a “biological” level.
  - Food, drink, physical contact, physical movement/sensory stimulation, warmth

• **Secondary**: Acquires values often by being paired with a primary.
  - Objects, social interactions, activities

• **Token**: A secondary reinforcer that can be exchanged for other reinforcers
  - Money, tickets, points
Let’s Look at All the Different Types of Reinforcers
Reinforcement Rarely Stands Alone

• Reinforcement is a fundamental practice that is almost always used with other evidenced based practices

• Reinforcement of new skill while using prompting, visual supports, extinction of another undesired behavior, etc.
Basic Principles of Reinforcement

• Always use STUDENT selected rewards

• Determine potential reinforcers through a preference assessment:
  • Inventories
  • Checklists
  • Sampling procedures

• Reinforcement should follow the target behavior

• Reinforcement should fit with the behavior, be meaningful and age appropriate

• Multiple reinforcers are more effective than a single reinforcer
---R+ Positive Reinforcer Selection---

Learner’s Name: ___________________ Date/Time: ___________________
Observer(s): ___________________ Target Skill/Behavior: ___________________

Positive Reinforcer Selection Checklist

<table>
<thead>
<tr>
<th>Questions to Consider</th>
<th>List Potential Reinforcers</th>
<th>Age Appropriate?</th>
</tr>
</thead>
<tbody>
<tr>
<td>What natural reinforcers could be used?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What activities, objects and foods does the learner select independently?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What phrases or gestures seem to produce a pleasant response from learner with ASD?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What does the learner say she would like to work for? (if appropriate)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What reinforcers were identified by parents or to her team members as being successful in the past?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What items did the learner select as part of the reinforcer sampling?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
EXAMPLE REINFORCER MENU

- gym ball
- Lego
- spin top
- Tangle
- computer
- Thomas puzzle

I am working for...
Principles of Reinforcement: Contingent Rewards

• Know and define your target response and performance criteria

• Make the reward contingent upon the target or approximation

• Give reward immediately (within 30 seconds) of target behavior

• Pair other reward with verbal and social praise (Pair a “primary” e.g. movement with a ”secondary” e.g. a desired object)

• Try to use naturally occurring rewards when possible
**Before You Start...**

Each of the following points is important to address so that you can be sure the selected EBP is likely to address the learning needs of your student.
Additional materials to help you with applying reinforcement (R+):

- Use the R+ Step-by-Step Practice Guide as an outline for how to plan for and monitor R+. Each step includes a brief description as a helpful reminder of learning the process.

- Use the R+ Implementation Checklist to determine if the practice is being implemented as intended.

- Use the R+ Tip Sheet for Professionals as a supplemental resource to help provide basic information about the practice to professionals working with the learner with ASD.

- Use the R+ Parent Guide to help parents or family members understand basic information about the practice being used with their child.

- Use the Additional Resources to learn more about the practice.

- The EBP Brief Packet contains all of the resources and materials about the practice.

www.captain.ca.gov
https://afirm.fpg.unc.edu
Use the Implementation Checklist to Ensure Fidelity Across Implementers
Share Information With Families

This introduction provides basic information about reinforcement (R+).

**What is reinforcement?**

- R+ is an evidence-based practice for child and youth with autism spectrum disorder (ASD) from birth to 22 years old.
- Reinforcement describes the relationship between behavior and a consequence that follows the behavior that increases the likelihood the skill or behavior is performed again.
- The three reinforcement procedures are positive reinforcement, negative reinforcement, and token economy programs.

**Why use reinforcement with my child?**

- Reinforcement is used to teach target skills and increase desired behaviors.
- Research studies have shown that reinforcement has been used effectively with many age groups to achieve outcomes in the following areas: joint attention, communication, social behavior, adaptive play, school readiness, motor, academic, cognitive, and vocational.

**What skills can I use at home?**

- Praise or reinforce appropriate behaviors (such as saying hello, completing chores, following directions).
- Use natural reinforcers whenever possible. For example, if your child signs water, reinforce the use of the sign by providing a glass of water.
- Create a list of favorite activities or objects to share with your child's teachers for possible reinforcers to use at school.
EBP: Visual Supports

• Any tool presented visually that supports an individual as he or she moves through the day

• Might include:
  – written words
  – objects within the environment
  – arrangement of the environment or visual boundaries
  – schedules
  – maps, labels
  – organization systems, timelines
  – scripts
Functional Visual Supports Show Students WHERE TO GO & HOW TO GET THERE

Lining up!
Visual Support
Gen Ed Class for ALL Students

3rd Grade Class
Visual Support
Gen Ed Class for ALL Students
Visual Support
Gen Ed Class for ALL Students

“How should my desk look?”
Sections of Binder are Color Coded and Coordinate with Book Covers
Colored Folder in Each Binder
Section/Subject
Planner Use and Structured End of Day Routine

- 1/21/11 Homework
  1º Nellie Bly
  2º Spelling Study for test!
  3º Math worksheet Multiplication
  4º Study for Test!!!
VISUAL SUPPORTS
SHOW WHAT TO DO-STEP BY STEP-TO COMPLETION
VISUAL SUPPORTS CAN BE USED FOR COMMUNICATION

Break, please.

I need help
VISUAL SUPPORTS
SHOW OPPORTUNITIES FOR CHOICE MAKING
VISUAL SUPPORTS
SHOW CLASS BEHAVIOR EXPECTATIONS
VISUAL SUPPORTS CAN HELP WITH TRANSITIONS

Individual Schedules

Reading
1. Read pages 1-5 in the book
2. Write 3 new reading words in your reading journal
EBP: Teaching Self Management and Self Monitoring

Learners are:

• Taught to discriminate between appropriate and inappropriate behaviors or performance

• Taught to accurately self monitor and record their own behaviors or performance

• Taught to self reflect and self reward

• Implementation responsibilities shift from teachers, families, and other practitioners to the learners themselves
Benefits of Self Management Skills

• Increases Independence and Performance

• Shown to improve Critical Thinking
  – Remember this is a MAJOR goal in Common Core!

• Student requires less supervision and external controls

• Allows student to actively participate in intervention
  – Minimizes power struggles
  – Increases buy in
Using A Timer

• The *TimeTimer* counts down and graphically shows you how much time is left

• You don’t need to focus on, or understand a traditional clock face to understand a *TimeTimer*

www.timetimer.com
Dry Erase Boards Are Helpful

**Reading**
1. Read pages 1–5 in the book *Five Silly Fisherman*
2. Write 3 new reading words in your reading journal
Self-Management Cue Card Is In Jason’s Daily Planner
(Note: all the other students use a school issued Daily Planner!)
Self-Management Reminder

✓ “Incredible 5-Point Scale”

✓ Reminds Jason to monitor his vocal volume in the general education classroom
Jason’s Self-Management Reminders

- It is okay to erase and fix a mistake.
- Sit quietly.
- Use your finger to read.
- Look at teacher.
Another Self-Management Reminder for Jason

“Raise your hand to ask for a break or comment on changes in the routine.”
Brady’s Self-Management Visual Supports

“Quiet!” Reminder

Raise Your Hand Reminder

I need help
“I Can Talk About Trains 5 Times Today!”

• Give the student 5 tickets/tokens that he turns in each time he talks about his favorite topic

• Provide the student with a self-monitoring chart that s/he can use to check off the 5 times s/he can talk about their favorite topic
If You’re Wondering Where to Start...

- To increase your knowledge about teaching students with ASD:
  - Review the CAPTAIN website www.captain.ca.gov
  - Contact your CAPTAIN Cadre http://www.captain.ca.gov/cadre.html
  - Start reading the 2014 NPDC & 2015 National Standards Project 2 Report
  - Review the AFIRM website to learn about each of the EBPs
  - Meet in job alike groups for continued growth in knowledge about ASD; ask for coaching
  - Check out the Ask A Specialist-ASD www.askaspecialist.ca.gov
  - Subscribe to NPDC Newsletter: http://fpg.unc.edu/subscribe-enews
Take Our Free ASD Course!
www.captain.ca.gov
https://www.coursera.org/learn/autism-spectrum-disorder
“Children and families cannot benefit from evidence-based practices that they do not experience.”

-Dean Fixsen, NIRN, 2006
Questions About CAPTAIN?
Contact Us!
www.captain.ca.gov

Ann England: aengland@dcn-cde.ca.gov
Patty Schetter: plschetter@ucdavis.edu
CAPTAIN Email: autismebp@gmail.com