Autism Training Series
Evidence Based Practices for Students with Autism Spectrum Disorders

Introduction & ASD Problem-Solving Process
July 21, 2016

KEDC
Kentucky Educational Development Corporation

AUTISM TRAINING SERIES
Let’s get started…

1. Make a name tag
2. Complete the Evidence-Based Practices Inventory
3. Turn in the EBP Inventory and Student Profile to the front table
4. Put your name in for the door prizes
# EBP Inventory

## Evidence-Based Practices Inventory for Students with ASD

**LEVEL (CIRCLE ALL THAT APPLY):**  
- PRESCHOOL  
- ELEMENTARY  
- MIDDLE  
- HIGH  
- DISTRICTWIDE

<table>
<thead>
<tr>
<th>Evidence-Based Practice</th>
<th>A. How familiar are you with this practice?</th>
<th>B. How often do you use this practice?</th>
<th>C. Rate your readiness to implement this practice</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>0</strong> Not familiar</td>
<td><strong>1</strong> Somewhat familiar</td>
<td><strong>2</strong> Very familiar</td>
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<tr>
<td>Antecedent-based Interventions</td>
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<td>Cognitive-behavioral Intervention</td>
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<td>Differential Reinforcement</td>
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<td>Discrete Trial Teaching</td>
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<td>Exercise</td>
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<td>Extinction</td>
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<td>Modeling</td>
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<td>Naturalistic Intervention</td>
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<td>Parent Implemented Interventions</td>
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<td>Peer-mediated Instruction and Intervention</td>
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<td>Picture Exchange Communication System (PECS)</td>
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<td>Pivotal Response Training</td>
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<td>Prompting</td>
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<td>Reinforcement</td>
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<td>Response Interruption/Redirection</td>
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<td>Scripting</td>
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<td>Self-management</td>
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<td>Social Narratives</td>
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<td>Social Skills Training</td>
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<td>Structured Play Group</td>
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<td>Task Analysis</td>
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<td>Technology-aided Instruction</td>
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<td>Time Delay</td>
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<td>Video Modeling</td>
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<td>Visual Supports</td>
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<td><strong>Totals:</strong></td>
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Agenda & Handouts

Autism Training Series
Introduction & Problem-Solving Process

AGENDA

July 21, 2016
9:00am-4:00pm

9:00 Introduction to the Autism Training Series
9:30 Characteristics of Autism Spectrum Disorders (ASD)
10:15 Break
10:30 Problem Solving Process
11:45 Lunch
1:00 Problem Solving - Case Study Presentations
2:15 Break
2:30 Problem Solving - Case Study Presentations
3:30 Summary & Review, Training Evaluations

Future Training Dates:
August 31, 2016
October 26, 2016
February 22, 2017
April 26, 2017
Summer 2017

Embedding Structure
Behavior & Communication
Instructional Strategies
Social Skills
Advanced Behavior Topics
Objectives

1. I can describe the characteristics of ASD that may affect learning and behavioral difficulties.
2. I can describe the steps of the problem solving process.
3. I can adapt the problem-solving process to assist with helping students with ASD.
ASD
Characteristics...
Autism Characteristics
Autism spectrum disorder (ASD) is a developmental disability that can cause significant social, communication and behavioral challenges.
DSM IV (1994-2013)
PERVASIVE DEVELOPMENTAL DISORDERS

- Autistic Disorder
- Asperger
- PDD-NOS
- Rett’s Disorder
- CDD

DSM 5 (May 2013)
Autism Spectrum Disorder
<table>
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<tr>
<th><strong>Domains/ Categories</strong></th>
<th><strong>DSM-IV</strong></th>
<th><strong>DSM-V</strong></th>
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<tr>
<td>Three domains:</td>
<td>Social Impairment</td>
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<td>• Social Impairment</td>
<td>Language/Communication Impairment</td>
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<td>• Language/Communication Impairment</td>
<td>Repetitive/restricted/stereotyped behaviors</td>
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<td>Two Categories:</td>
<td>Social Communication Impairment</td>
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<td>• Social Communication Impairment</td>
<td>Restricted interests/repetitive behaviors</td>
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<td>Diagnosis Requirements</td>
<td>At least 6 out of 12 deficits in the three domain areas</td>
<td>3 deficits in social communication</td>
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<td>At least 2 symptoms in Restricted Repetitive Patterns of Behavior/Interests</td>
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<td>• <strong>New symptom:</strong> Hyper- or hypo-reactivity to sensory input or unusual interests in sensory aspects of the environment</td>
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Previous DSM-IV Definition of Autism

- Impairment in Socialization
- Impairment in Communication
- Restricted & Repetitive Behavior
Autism Spectrum Disorder
DSM 5 Definition (2013)

Deficits in social communication and social interaction across multiple contexts

Restricted, repetitive patterns of behavior, interests, or activities

*12 Combinations of 7 criteria across 2 core features can arrive at a diagnosis
A. Persistent deficits in social communication and social interaction across multiple contexts, not accounted for by general developmental delays, and manifest by all 3 of the following:

- Deficits in social-emotional reciprocity
- Deficits in nonverbal communicative behaviors used for social interaction
- Deficits in developing, maintaining, and understanding relationships
B. Restricted, repetitive patterns of behavior, interests, or activities as manifested by at least 2 of the following:

- Stereotyped or repetitive motor movements, use of objects, or speech
- Insistence on sameness, inflexible adherence to routines, or ritualized patterns of verbal or nonverbal behavior
- Highly restricted, fixated interests that are abnormal in intensity or focus
- Hyper-or hypo-reactivity to sensory input or unusual interest in sensory aspects of the environment
Changing Rate of ASD

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<th>1994</th>
<th>2015</th>
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<td></td>
<td>DSM IV</td>
<td>CDC</td>
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<td>1 in 2,000</td>
<td>1 in 68</td>
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</table>
Why the Change

• Diagnosticians are good at distinguishing ASD vs. not ASD but lack of consistency regarding autism vs. PDD-NOS vs. Asperger

• No consistent research evidence for separation of Asperger from autism

• Diagnostic biases by race and SES

• Goals is to be more SENSITIVE (correct inclusion) and more SPECIFIC (correct exclusion)
What characteristics can cause our students to have difficulties?

UNDERLYING CHARACTERISTICS

• **Executive Functioning** - a broad group of mental processes, including working memory, inhibition, planning, flexibility, task initiation and performance monitoring, and self-regulation.

• **Theory of Mind** - a person’s inability to understand and identify the thoughts, feelings and intentions of others and apply this understanding to predict the actions of others.

• **Weak Central Coherence** - the ability to integrate information into a meaningful whole. (A tendency to focus on details (parts) while losing sight of the whole.)
BEHAVIOR

**Social**: Joint Attention & Reciprocity

**Communication**: Expressive & Receptive

**Difficulty with Change**: Limited interests, repetitive behavior, rigidity

**Sensory Processing**: integration and modulation of inputs

**Cognitive Style**: Organization, sequencing, planning

Attention to relevance

Abstraction and generalization
<table>
<thead>
<tr>
<th>Communication</th>
<th>Socialization</th>
<th>Restrictive/Repetitive</th>
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</thead>
<tbody>
<tr>
<td><strong>Cognition</strong></td>
<td><strong>Characteristics of Autism Spectrum Disorders</strong></td>
<td><strong>Sensory</strong></td>
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<tr>
<td><em>Joint attention</em></td>
<td><em>Pragmatic Language:</em></td>
<td><em>Restricted Interests</em></td>
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<tr>
<td><em>Turn taking</em></td>
<td>- Lack of spontaneity</td>
<td>- Unusual attachments to objects.</td>
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<tr>
<td><em>Anticipating a routine</em></td>
<td>- Recognizing a speaker’s intent</td>
<td>- Preference for routines/rituals</td>
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<tr>
<td><em>Eye Contact</em></td>
<td>- Reciprocating during conversation</td>
<td>- Perseverative behaviors.</td>
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<td><em>Imitation Skills</em></td>
<td>- Respond with the appropriate amount of information</td>
<td>- Eccentric preoccupations.</td>
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<td><em>Functional Communication:</em></td>
<td>- Interest in objects versus people</td>
<td>- Trouble letting go of ideas.</td>
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<td>- Idiosyncratic language usage</td>
<td><em>Understanding social rules, social engagement, and maintaining interactions.</em></td>
<td>- Focused on one idea</td>
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<td>- Literal language interpretation</td>
<td><em>Poor empathy.</em></td>
<td><em>Difficulties understanding the concept of finished.</em></td>
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<tr>
<td><em>Nonverbal/Paraverbal language</em></td>
<td><em>Bluntly honest.</em></td>
<td><em>Stereotypic behaviors—hand flapping, video or movie talk, spinning, lining up items</em></td>
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<tr>
<td><em>Withdrawal tendency - Prefer to be alone.</em></td>
<td><em>Difficulties making/maintaining friends.</em></td>
<td>- Limited range of interests/insist on interacting around preferred topics</td>
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<td><em>Difficulty with time</em></td>
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<tr>
<th>Academic</th>
<th>Emotional Vulnerability</th>
<th>Motor</th>
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<tr>
<td><strong>Summary of Characteristics</strong></td>
<td><strong>Emotional Vulnerability</strong></td>
<td><strong>Motor</strong></td>
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<tr>
<td><em>Cognitive</em></td>
<td><em>Easily stressed—worries obsessively</em></td>
<td><em>Poor motor coordination</em></td>
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<td>- Prefer Order, Predictability, Familiarity</td>
<td><em>Unusual fear responses</em></td>
<td><em>Avoidant gait</em></td>
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<tr>
<td>- Theory of Mind difficulties</td>
<td><em>Difficulties tolerating mistakes</em></td>
<td><em>Unusual body postures, movements, &amp; facial expressions</em></td>
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<tr>
<td>- Over-selectivity</td>
<td><em>Difficulties identifying, expressing or controlling emotions.</em></td>
<td><em>Handwriting difficulties</em></td>
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<td>- Gestalt thinking or chunking</td>
<td><em>Exhibits “meltdowns” reactions</em></td>
<td><em>Resists or refuses handwriting or other fine motor tasks</em></td>
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<td>- Time Management</td>
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<td>- Uneven Skill Development</td>
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<tr>
<td>- Problem-solving</td>
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<td><strong>Academic</strong></td>
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<td><em>Extensive knowledge in narrow areas of interest.</em></td>
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<td><em>Strong rote memory skills</em></td>
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<td><em>Strong decoding with weaker comprehension skills.</em></td>
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<td><em>Knows facts/details but difficulty with abstract reasoning.</em></td>
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<td><em>Difficulties applying learned skills in new situations.</em></td>
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<td><em>Easily Distracted</em></td>
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Processing Differences

An individual with autism is like a Mac in a PC-dominated environment. It is hard-wired differently. Not incorrectly – just differently.

-- Ellen Notbohm
Picture Summary

Table Groups: Design a picture poster that summarizes the key points you’ve learned.

4 rules:
1—page limit is one sheet of paper
2—only pictures can be used, which includes 5 graphics, symbols, icons, or diagrams but not words, letters or numbers
3—joint effort, meaning that all team members should contribute
4—time limit is 5 minutes.
Evidence Based Practices
NPDC Evidence-Based Practices for Children, Youth, and Young Adults with Autism Spectrum Disorder: EBP Report 2014

- Antecedent-based interventions
- Cognitive-behavioral intervention
- Differential Reinforcement (DRA/I/O)
- Discrete Trial Teaching
- Exercise
- Extinction
- Functional Behavioral Assessment
- Functional Communication Training (FCT)
- Modeling
- Naturalistic Intervention
- Parent implemented interventions
- Peer-mediated Instruction & Intervention
- Picture Exchange Communication System (PECS)
- Pivotal Response Training
- Prompting
- Reinforcement
- Response interruption/redirection
- Scripting
- Self-management
- Social narratives
- Social skills training
- Structured play group
- Task analysis
- Technology-aided instruction
- Time delay
- Video Modeling
- Visual Supports
Evidence Based Practices

Review EBP working definitions:

- Antecedent Based Intervention
- Functional Behavior Assessment (FBA)
- Modeling
- Prompting
- Reinforcement
- Social Narratives
- Task Analysis
- Visual Support

Table 7. Working Definitions for EBPs

<table>
<thead>
<tr>
<th>Evidence-Based Practice</th>
<th>Definition</th>
<th>Empirical Support</th>
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<tbody>
<tr>
<td>Antecedent based Intervention (ABI)</td>
<td>Arrangement of events or circumstances that precede the occurrence of an interfering behavior and designed to lead to the reduction of the behavior.</td>
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<tr>
<td>Cognitive behavioral intervention (CBI)</td>
<td>Instruction or management or control of cognitive processes that lead to changes in overt behavior.</td>
<td>3</td>
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<tr>
<td>Differential reinforcement of Alternative, Incompatible, or Other Behavior (DRA/I/O)</td>
<td>Provision of positive/desirable consequences for behavior or their absence that reduce the occurrence of an undesirable behavior. Reinforcement provided: 1) 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 (DRA); or c) when the learner is not engaging in the interfering behavior (DRA).</td>
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<tr>
<td>Discrete trial teaching (DTT)</td>
<td>Instructional process usually involving one teacher/service provider and one student/client and designed to teach appropriate behavior or skills. Instruction usually involves repeated 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.</td>
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<td>Exercise (EC)</td>
<td>Increase in physical exertion as a means of reducing problem behaviors or increasing appropriate behavior.</td>
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<td>Extinction (EXT)</td>
<td>Withdrawal or removal of reinforcement 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.</td>
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<tr>
<td>Functional behavior assessment (FBA)</td>
<td>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.</td>
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<tr>
<td>Functional communication training (FCT)</td>
<td>Replacement of interfering behavior that has a communication function with more appropriate communication that accomplishes the same function. FCT usually includes FSA, IRA, and/or EC.</td>
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<td>Modeling (MO)</td>
<td>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.</td>
<td>1</td>
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### Table 8. Matrix of Evidence-Based Practices by Outcome and Age (years)

<table>
<thead>
<tr>
<th>EBP</th>
<th>Social</th>
<th>Communication</th>
<th>Behavior</th>
<th>Joint Attention</th>
<th>Play</th>
<th>Cognitive</th>
<th>School Readiness</th>
<th>Academic</th>
<th>Motor</th>
<th>Adaptive</th>
<th>Vocational</th>
<th>Mental Health</th>
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<td>CBI</td>
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<td>15-22</td>
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A shaded box represents that at least one study meeting criteria included participants in the given age group and reported improvement on a given outcome.
Resources for Evidence-Based Practices

• National Autism Center -- National Standards Project:

• National Professional Development Center on ASD
  – [http://autismpdcpdc.fpg.unc.edu/content/ebp-update](http://autismpdcpdc.fpg.unc.edu/content/ebp-update)
  – [http://afirm.fpg.unc.edu/afirm-modules](http://afirm.fpg.unc.edu/afirm-modules) (AFIRM modules)

• Autism Internet Modules (AIM)

• Association for Science in Autism Treatment
  – [http://www.asatonline.org/treatment/treatments_desc.htm](http://www.asatonline.org/treatment/treatments_desc.htm)
All practices must align with...

• Law
  – IDEA

• Literature
  – Evidence-Based Practice

• Student Data
  – Outcomes
Break: 15 minutes
Problem-Solving Process

Team Approach
Why Do This?...Rationale for ASD Problem-Solving Process

• ASD issues are complex
• Teachers want to help - don’t know how
• Comprehensive approach often needed
• Structured process helps people focus
• Systematic analysis is more effective
• Range of perspectives become unified
Who Should Be Involved in the Problem Solving Process?

- Parents
- General Ed. Teacher
- Special Ed. Teacher
- Paraprofessional
- Speech Language Pathologist
- Occupational Therapist
- School Psychologist
- Administrator
- Student?
- Other as Needed
ASD Problem-Solving TEAM

Team member roles

- Team Leader – keeps things going between meetings
- Team Meeting Facilitator – facilitates discussion of student cases during the meeting
- Team Recorder – record valuable indirect assessment information during discussions
- Team Encourager – stays focused on emotions and providing support to persons (e.g., parents, teachers, etc.) who are involved in the process
- Follow-Up Roles for Plan Implementation - share
ASD Problem-Solving TEAM

Team Collaboration

A. Maintain a balanced team
   - Members who can be objective
   - Members who are directly involved

B. Maintain “Collaborative Ethic”

C. Approach problem or issue calmly; acknowledge feelings professionally

D. Communicate in ways that maintain respect, trust and sharing of information
ASD
Problem-Solving Process

STEPS...
ASD Problem-Solving Process

I. Problem Identification
II. Gather Relevant Information/Data
III. Problem Analysis
IV. Intervention Design
V. Individual Education Program
VI. Plan Implementation
VII. Follow-up
ASD Problem-Solving Process

I. Problem Identification
II. Relevant Information/ Data Collection
III. Problem Analysis
IV. Intervention Design
V. Individual Education Program (IEP/BIP)
VI. Plan Implementation
VII. Follow-Up
I. Identify the Problem

A. **Identify** key problems, issues, or concerns

B. Initially **prioritize** needs, issues and behaviors of concern

C. Determine **type/intensity of plan** – Is crisis, targeted or comprehensive planning needed?
Case Study Sample

Dave, a thirteen year old male, attends self-contained classroom at a local middle school. Dave is independent in basic self-help skills and has relatively good communication skills. He has been described experiencing a mild/moderate mental disability. Dave was felt to have good social skills and enjoys most recreational events at the school and in the community. Dave is a healthy individual standing about six feet tall and weighing approximately 200 pounds.

Dave has a history of very aggressive behavior which consists of grabbing staff and attempting to choke or hit them. Dave’s behavior has improved so much that he now attends some general education classes with same age peers. Recently, Dave started to display the aggressive behavior. The aggressive behaviors were of such intensity that several staff had become injured and it typically took up to four staff to control Dave.

A number of staff began to investigate when, where, and under what circumstances the aggressive behavior occurred. Several things were noted. One was that aggressions tended to be preceded by requests. A typical sequence would involve a request by staff, Dave saying “no” to the request, staff then repeating the request, Dave calling the staff a name, followed by the staff indicating that this was not appropriate, and finally Dave engaging in aggression. Also, if staff did not intervene quickly to physically control Dave, it was likely that the persons being aggressed would be injured. Dave appeared to enjoy being told he was doing a good job. However, on occasion he would use a positive statement by others as a reason to start an argument. Aggression was not specific to any time of day or any environment.
ASD Problem-Solving Process

I. Problem Identification
II. Gather Relevant Information/Data
III. Problem Analysis
IV. Intervention Design
V. Individual Education Program (IEP/BIP)
VI. Plan Implementation
VII. Follow-Up
II. Gather Information/Data

A. Discuss details of student needs, context and related issues/concerns with key people

B. Gather information from…Indirect Assessments

- Student Information and records
- School / Classroom Information
- Parent / Guardian Information
Indirect vs. Direct Assessment

- **Indirect Assessment** - Ask someone else who was there to answer questions and remember events and describe their perceptions…

- **Direct Assessment** - Go see for yourself! …assess the student or observe classroom setting and other factors directly and objectively for yourself
Student Information…

• Get Student Information (Indirect)

  ▪ **Interview** key people who know the student and related factors / context.

  ▪ Discuss current status of **communication, pragmatics, and social skills**.

  ▪ Identify the **strengths** of the student
...Student Information

- Identify the possible motivators and interests of the student (e.g., Motivational Assessment Scale).

- Consider the student’s history (medical, biological, environmental, or educational factors that may contribute to the behavior/ issues of concern).

- Explore mental health factors (e.g., anxiety/ depression?).
C. Determine Sufficiency of information/ data

- Is more information needed for current level of planning?
  - Crisis
  - Targeted
  - Comprehensive

If no, proceed to next section & analyze the problem
If yes, consider whether you need Direct Assessments?

- Who will collect more information, if needed?
- What information/ data do we need them to collect?
II. Gather Information/ Data

D. If needed, gather additional information or conduct **Direct Assessments**

- **Student** observations and specific targeted assessments
- **School / Classroom** Information
- **Parent / Other Professionals** Information
ASD Problem-Solving Process

I. Problem Identification
II. Gather Relevant Information/Data
III. Problem Analysis
IV. Intervention Design
V. Individual Education Program (IEP/BIP)
VI. Plan Implementation
VII. Follow-Up
III. Analyze the Problem

A. Analyze and **summarize** information across all areas
   - Consider indirect and direct assessments
   - Look at student, classroom and parent info
   - Consider underlying characteristics

B. Complete **A-B-C analysis**
   - Surface A-B-Cs of behavior
   - Determine the Antecedent(s), Behavior(s), and Consequence(s) that correlate to any behavior concerns (e.g., collect info needed for ABC analysis and FBA).
A-B-C Contingency

Antecedent (Stimulus) → Behavior (Response) → Consequence (Reinforcer or Punisher)
III. Analyze the Problem

C. Complete/ finalize a formal FBA, if needed.

- Consider the following **functions** of behavior:
  1. The student is trying to **get** something.
  2. The student is trying to **avoid** something.

*Consider whether the student **lacks the ability or awareness** to exhibit expected behavior.*
Function-based support is all about…

**Re-design & improvement** of learning & teaching environments

- Attention to environment & function
- Not re-design of individuals
- Change in **behavior of implementers** of plan
Logic of functional approach

• Behaviors are maintained by consequence events (function)
  – Positive or negative reinforcement

• Behaviors are occasioned by antecedent events
  – Relate antecedent to emission of behavior & likelihood of consequence event

• Changing behaviors requires consideration of maintaining consequences
Functions

Problem Behavior

Obtain/Get Something

Escape/Avoid Something

Social Tangible/Activity

Pos Reinf

Stimulation/Sensory

Adult

Neg Reinf

Social

Tangible/Activity

Peer
III. Analyze the Problem

D. Confirm priority issues of concern, or change/add issues and re-prioritize…

Consider:

- Instructional issues
- Behavioral issues
- Mental health issues
- Environmental issues
III. Analyze the Problem

F. Identify skills & replacement behaviors: Specifically what skills/behaviors will require systematic instruction?

1. Communication skills
2. Replacement behaviors
3. Academic skills
4. Social skills
5. Cognitive-behavioral self-talk
6. Anger management/ calming strategies

…What do we need to teach????????
ASD Problem-Solving Process

I. Problem Identification
II. Gather Relevant Information/Data
III. Problem Analysis
IV. Intervention Design
V. Individual Education Program (IEP/BIP)
VI. Plan Implementation
VII. Follow-Up
IV. Design An Intervention / Plan

A. Short and long term vision for the student

B. Goals for each student priority area

C. Consider key components of effective interventions for ASD

D. Determine matching evidence-based practices (ASD-EBPs)

E. Brainstorm Interventions

F. Evaluate feasibility of proposed interventions and adult training needs

G. Draft an intervention plan to include systematic instruction and behavioral interventions, as needed
Evidence Based Practices

- Antecedent Based Intervention
- Cognitive Behavioral Intervention
- Differential reinforcement
- Discrete trial teaching
- 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 instruction/intervention
- Time delay
- Video modeling
- Visual supports
Evidence Based Practices

Table 8. Matrix of Evidence-Based Practices by Outcome and Age (years)

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A shaded box represents that at least one study meeting criteria included participants in the given age group and reported improvement on a given outcome.
Evidence-Based Practices (NPDC)

*Independence*
- Self-management
- Structured work systems

*Social*
- Peer-mediated intervention
- Social skills training groups

*Motivation*
- Functional behavior assessment
- Functional communication training

*Behavioral*
- Discrete trial training (DTT)
- Differential reinforcement
- Extinction
- Prompting
- Reinforcement
- Response interruption/redirection
- Stimulus control
- Task analysis
- Time delay
Evidence-Based Practices (NPDC)

Communication
- Speech generating devices
- PECS

Technology
- Technology-aided instruction

Parent
- Parent-implemented interventions

Visual
- Visual supports
- Video modeling
- Social narratives

Natural environment
- Pivotal Response Training (PRT)
- Naturalistic interventions

Other
- Exercise
### Evidence Based Practices

<table>
<thead>
<tr>
<th>Evidence-Based Practice</th>
<th>Definition</th>
<th>Group (n)</th>
<th>Single Case (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antecedent-based</td>
<td>Arrangement of events or circumstances that precede the occurrence of an</td>
<td>0</td>
<td>32</td>
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<td>intervention (ABI)</td>
<td>interfering behavior and designed to lead to the reduction of the behavior.</td>
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<td>Cognitive behavioral</td>
<td>Instruction on management or control of cognitive processes that lead</td>
<td>3</td>
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<td>intervention (CB)</td>
<td>to changes in overt behavior.</td>
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<td>Differential reinforcement</td>
<td>Provision of positive desirable consequences for behaviors or their</td>
<td>0</td>
<td>26</td>
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<td>of Alternative,</td>
<td>absence that reduce the occurrence of an undesirable behavior.</td>
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<td>Incompatible, or Other</td>
<td>Reinforcement provided: a) when the learner is engaging in a specific</td>
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<td>Behavior (DRIA/BIO)</td>
<td>desired behavior other than the inappropriate behavior (DRA), b) when</td>
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<td>the learner is engaging in a behavior that is physically impossible to</td>
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<td>do while exhibiting the inappropriate behavior (DRI), or c) when the</td>
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<td>learner is not engaging in the interfering behavior (DIO).</td>
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<tr>
<td>Discrete trial teaching</td>
<td>Instructional process usually involving one teacher/service provider and</td>
<td>0</td>
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<tr>
<td>(DTT)</td>
<td>one student/client and designed to teach appropriate behavior or skills.</td>
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<td>Instruction usually involves massed trials. Each trial consists of the</td>
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<td>teacher's instruction/presentation, the child’s response, a carefully</td>
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<td>planned consequence, and a pause prior to presenting the next instruction.</td>
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<tr>
<td>Exercise (ECI)</td>
<td>Increase in physical exertion as a means of reducing problem behaviors or</td>
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<td>increasing appropriate behavior.</td>
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<tr>
<td>Extinction (EXT)</td>
<td>Withdrawal or removal of reinforcers of interfering behavior in order</td>
<td>0</td>
<td>11</td>
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<td></td>
<td>to reduce the occurrence of that behavior. Although sometimes used as</td>
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<td></td>
<td>a single intervention practice, extinction often occurs in combination</td>
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<td>with functional behavior assessment, functional communication training,</td>
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<td></td>
<td>and differential reinforcement.</td>
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<td>Functional behavior</td>
<td>Systematic collection of information about an interfering behavior</td>
<td>0</td>
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<tr>
<td>assessment (FBA)</td>
<td>designed to identify functional contingencies that support the behavior.</td>
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<td>FBA consists of describing the interfering or problem behavior, identifying</td>
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<td>antecedent or consequent events that control the behavior, developing</td>
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<td>a hypothesis of the function of the behavior, and/or testing the</td>
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<td></td>
<td>hypothesis.</td>
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<td>Functional communication</td>
<td>Replacement of interfering behavior that has a communication function</td>
<td>0</td>
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<tr>
<td>training (FCT)</td>
<td>with more appropriate communication that accomplishes the same function.</td>
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<td></td>
<td>FCT usually includes FBA, DRIA, and/or EL.</td>
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<td>Modeling (MD)</td>
<td>Demonstration of a desired target behavior that results in imitation of</td>
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<td>the behavior by the learner and that leads to the acquisition of the</td>
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<td>imitated behavior. This EBP is often combined with other strategies such</td>
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<td>as prompting and reinforcement.</td>
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ASD Problem-Solving Process

I. Problem Identification
II. Gather Relevant Information/Data
III. Problem Analysis
IV. Intervention Design
V. Individual Education Program (IEP/BIP)
VI. Plan Implementation
VII. Follow-Up
V. Develop, Review, or Revise IEP

A. Develop, review or revise IEP Components, as needed:

- Outline specific strengths and areas of concerns in the ‘Present Levels of Educational Performance’ (PLEP) section of the IEP.

- Consider ‘Special Factors’ section of the IEP.

- Add measurable annual goals to IEP.

- Select IEP benchmarks or objectives.
V. Develop, Review, or Revise IEP

- Include goals & interventions that correlate with the BIP, if appropriate, and incorporate systematic instruction.

- Develop Specially Designed Instructional (SDI) strategies for the IEP.

- Consider LRE, Supplementary Aids and Services (SAS), supports needed for school personnel, accommodations and modifications, and transition planning.
ASD Problem-Solving Process

I. Problem Identification
II. Gather Relevant Information/Data
III. Problem Analysis
IV. Intervention Design
V. Individual Education Program (IEP/BIP)
VI. Plan Implementation
VII. Follow-Up
VI. Implement the Plan(s)

A. Build a detailed implementation plan
B. Determine training needed for implementers
C. Consultation / coaching / support to ensure fidelity
D. Ongoing data collection and analysis
E. Monitoring and feedback
ASD Problem-Solving Process

I. Problem Identification
II. Gather Relevant Information/Data
III. Problem Analysis
IV. Intervention Design
V. Individual Education Program (IEP/BIP)
VI. Plan Implementation
VII. Follow-Up
VII. Follow-Up

A. Evaluate periodically; revise and adjust the plan as needed

B. Provide ongoing support and consultation

C. Report progress and…

   celebrate success!!!!!
ASD Problem-Solving

Problem Solving Process:

1. Define the Behavior
   - Problem Identification
   - Problem Analysis
2. Determine the Function of the Behavior
   - Gather Info/Data
   - Review/Revise IEP
3. Determine Interventions using Evidence Based Practices
   - Intervention Design
4. Implement & Monitor
   - Plan Implementation
   - Follow-up
Case Study Sample

Dave, a thirteen year old male, attends self-contained classroom at a local middle school. Dave is independent in basic self-help skills and has relatively good communication skills. He has been described experiencing a mild/moderate mental disability. Dave was felt to have good social skills and enjoys most recreational events at the school and in the community. Dave is a healthy individual standing about six feet tall and weighing approximately 200 pounds.

Dave has a history of very aggressive behavior which consists of grabbing staff and attempting to choke or hit them. Dave’s behavior has improved so much that he now attends some general education classes with same age peers. Recently, Dave started to display the aggressive behavior. The aggressive behaviors were of such intensity that several staff had become injured and it typically took up to four staff to control Dave.

A number of staff began to investigate when, where, and under what circumstances the aggressive behavior occurred. Several things were noted. One was that aggressions tended to be preceded by requests. A typical sequence would involve a request by staff, Dave saying “no” to the request, staff then repeating the request, Dave calling the staff a name, followed by the staff indicating that this was not appropriate, and finally Dave engaging in aggression. Also, if staff did not intervene quickly to physically control Dave, it was likely that the persons being aggressed would be injured. Dave appeared to enjoy being told he was doing a good job. However, on occasion he would use a positive statement by others as a reason to start an argument. Aggression was not specific to any time of day or any environment.
What's for Lunch?!
ASD Problem-Solving Panel Discussions

- Listen to each scenario
- Table talk - 3 minutes
- Panel Discussion Observation
  - (take notes)
- Q & A
NPDC Evidence-Based Practices for Children, Youth, and Young Adults with Autism Spectrum Disorder: EBP Report 2014

- Antecedent-based interventions
- Cognitive-behavioral intervention
- Differential Reinforcement
  - DRA/I/O
- Discrete Trial Teaching
- Exercise
- Extinction
- Functional Behavioral Assessment
- Functional Communication Training (FCT)
- Modeling
- Naturalistic Intervention
- Parent implemented interventions
- Peer-mediated Instruction & Intervention
- Picture Exchange Communication System (PECS)

- Pivotal Response Training
- Prompting
- Reinforcement
- Response interruption/redirection
- Scripting
- Self-management
- Social narratives
- Social skills training
- Structured play group
- Task analysis
- Technology-aided instruction
- Time delay
- Video Modeling
- Visual Supports
Questions, Comments, Concerns?

How will you use the information presented today?
Next Steps

Reflect on your classroom practices…

• Complete the survey monkey
  https://www.surveymonkey.com/r/ASDCETA
Register for the next training 😊

• August 31, 2016  Embedding Structure
• October 26, 2016  Behavior & Communication
• February 22, 2017  Instructional Strategies
• April 26, 2017  Social Skills
• Summer 2017  Advanced Behavior Topics
Evaluations & Certificates
Contact Us

Mandy Carter, KEDC
Mandy.carter@kedc.org

Kim Howard, KATC
Kim.howard@kedc.org