



Universal Classroom Supports for Students with Autism Spectrum Disorder

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Learning Objectives

- Participants will increase knowledge of...
 - elements of the instructional context associated with student participation and engagement.
 - autism spectrum disorder (ASD) and effect on participation and engagement.
 - the Multi-tiered Problem-solving Model (MTPS) .
 - Tier 1 universal supports for students with ASD.

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Instructional Contexts

- Literature shows a relationship between the instructional context and student achievement.
 - Contexts that promote student participation and engagement are associated with better student achievement.
- Two elements of effective instructional contexts.
 - Effective Behavior Supports.
 - Quality Instruction.

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ASD & LEARNING

- ASD & Learning**
- ASD characteristics and related conditions can affect participation and engagement.
 - Social communication and interaction impairments.
 - Repetitive and restricted activities, interests, and behaviors.
 - Language disorders.
 - Intellectual and neurocognitive disabilities.
 - Emotional and behavioral conditions.
 - Medical conditions and medication.
 - Sleep and eating problems.
 - Sensory processing problems.
 - Adaptive impairments.

- ASD & Learning**
- Students with ASD often show...
 - Functional communication impairments.
 - May not seek out and ask for assistance, instead may 'act out' when frustrated, challenged, or upset.
 - Restricted & Repetitive Behavior, Interests & Activities.
 - May prefer to engage in RRB instead of school work.
 - Academic learning problems.
 - Intellectual disability.
 - Scattered cognitive skills.
 - Specific learning disabilities.

ASD & Learning

- Student may also show...
 - Executive function problems.
 - Difficulty with planning, organizing and problem-solving.
 - Difficulty following classroom routines.
 - Working memory and other memory problems.
 - Difficulty remembering more than 1 or 2 things so may not be able to follow multi-step direction.

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ASD & Learning

- Student may also show...
 - Attention and concentration problems.
 - May be off task.
 - May have difficulty initiating & completing assignments.
 - Processing speed problems.
 - Difficulty combining information efficiently so may appear to be noncompliant.

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ASD & Learning

- One or more of these difficulties can lead to...
 - NON-COMPLIANCE.
 - Passive
 - Active
 - DISRUPTIVE BEHAVIORS.
 - Aggression (verbal, physical)
 - Elopement.
 - Tantrum or meltdown.
 - Property destruction.
 - Repetitive behavior.



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ASD & Learning

If the instructional context is designed to support participation & engagement, then the student is more likely to learn and achieve.



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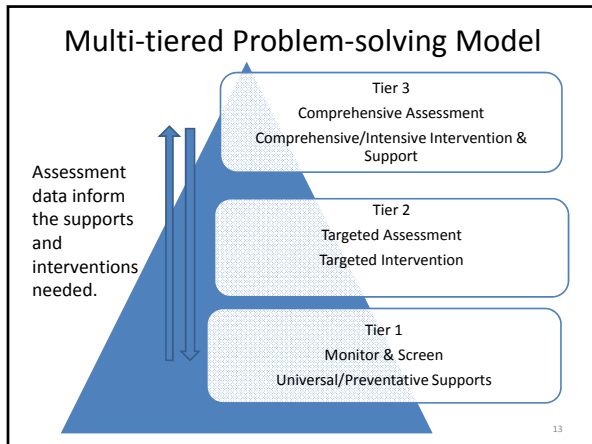
MULTI-TIERED PROBLEM-SOLVING MODEL

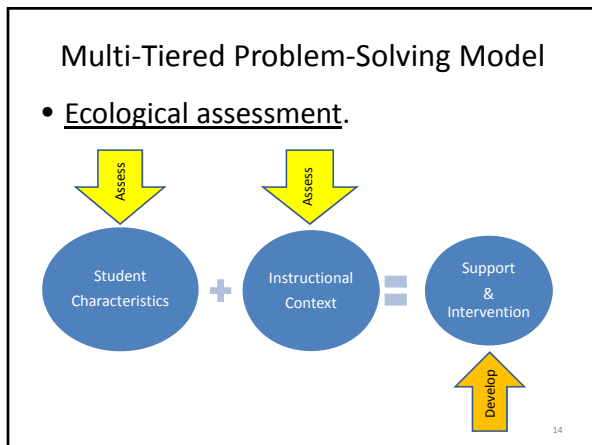
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Multi-Tiered Problem-Solving Model

- Problem-solving model used to improve participation and engagement.
 - Ecological framework.
 - Assessment data from student and context is used to inform support/intervention plan.
 - Prevention oriented.
 - Data-based decision making: Problem-solving Process.
 - Problem Identification
 - Problem Analysis
 - Intervention Planning
 - Implementation
 - Evaluation

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- ### MTPS: Ecological Assessment
- | Student | Context |
|--|--|
| <ul style="list-style-type: none"> • ASD Characteristics. • Developmental levels. <ul style="list-style-type: none"> – Cognitive – Academic – Language – Social – Motor – Adaptive • Other Conditions. <ul style="list-style-type: none"> – Emotional – Behavioral – Medical | <ul style="list-style-type: none"> • Behavior Support System (Classroom Management System). <ul style="list-style-type: none"> – Expectations. – Reinforcement System. • Quality of Instruction. <ul style="list-style-type: none"> – Curriculums. – Methods, format, activities, pace. – Opportunities to respond (OTR) – Error Correction. – Evaluation system. |
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MTPS: Link Assessment to Intervention

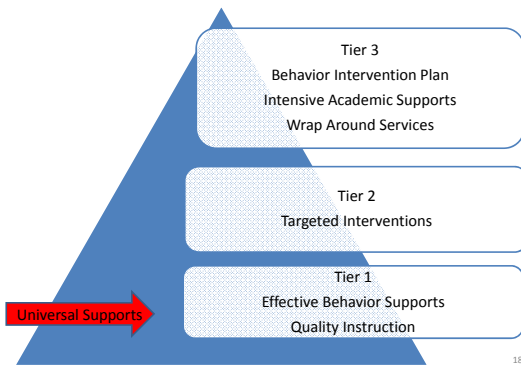
- Use assessment data to identify the supports & interventions needed for participation and engagement.
- Establish performance benchmarks.
 - Specific: based on the specific target behavior (s).
 - Global: based on global classroom functioning.
- On-going assessment of student response.
 - Problem-solve/adjust supports.
 - Determine if additional assessment is needed.
 - Targeted (Tier 2)
 - Comprehensive (Tier 3).

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TIER 1 SUPPORTS

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Multi-Tiered Problem-Solving Model



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Effective Behavior Supports

*Classroom Management System
Social & Functional Communication
Supports*

- Classroom Management System**
- Establishes expectations for appropriate classroom participation.
 - Teaches students the prosocial skills needed to meet the expectations.
 - Reinforces students for displaying the prosocial skills & meeting expectations.
 - Hierarchy of corrective actions to deal with disruptive behavior.
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- Classroom Management System**
- Examples of Classroom Expectations:
 - Safety
 - Respectful
 - Responsible

 - Safe Hands
 - Nice Words
 - Follow Direction
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Classroom Management System

- Steps to developing an effective behavior support system.
 - Behavioral expectations (prosocial skills).
 - Post and teach explicitly.
 - Review, reteach, and error-correct throughout the day.
 - Differential Reinforcement of Appropriate Behavior (DRA).
 - Provide high rates of reinforcement for meeting expectations/displaying prosocial behaviors.
 - Implement a gradient of corrective prompts for disruptive behavior.
 - Planned ignore, proximity, corrective prompt, corrective prompt + model, corrective prompt + warning, corrective prompt + management strategy.

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Classroom Management System

- Regularly evaluate the effectiveness of the system on student behavior.
 - *Specific: ABC Sheet or other direct observation data sheet.*
 - *Global: Classroom Survival Skills Checklist (Magyar 2006/2010).*
- Problem-solve if ineffective.
 - Modify the system; and/or
 - Consider additional intervention (e.g., Tier 2) if the performance data indicate a student is not responding.

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Additional Behavior Supports

- May need to consider establishing additional behavior supports for students with ASD.
 - Group Attending & Participation.
 - Steps....
 - Define and teach skills.
 - Establish a reinforcement system to strengthen each skill.
 - Evaluate student response.
 - Other specific classroom participation skills may need to be addressed too.
 - Tier 1 & 2

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Communication Supports

- ### Communication Supports
- Social & functional communication supports will often be needed to...
 - Improve participation and engagement.
 - Prevent disruptive behaviors.
 - Many disruptive behaviors are often due to poor communication skills.
 - May also require targeted intervention (Tier 2) and some may require intensive intervention and support (Tier 3).
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- ### Communication Supports
- Multiple strategies can be used in the classroom (Tier 1).
 - Inquiry.
 - Model prompt.
 - Communication scripts or other visual communication supports.
 - Augmentative or alternative communication system.
 - Consultation and coaching from related service personnel (e.g., speech-language, social work) for student-specific support strategies.
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Quality Instruction
Scheduling Systems
Visual Supports
Instructional Supports

Quality Instruction

- Various ASD supports can enhance the effectiveness of instruction for students.
 - Use of Scheduling Systems.
 - Use of Visual Support Systems.
 - Instructional Supports & Modifications.
 - Effective Behavior Supports.
- All can contribute to increasing student participation and engagement.

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Schedules
Scheduling Systems

Schedules

- Schedules establish routines and assist with student participation and engagement.
- Multiple types of schedules.
 - Classroom Schedule.
 - Sequence of activities in the day: participation.
 - Student Specific Schedule.
 - Sequence of activities specific to the student's day (full or part): participation.
 - Activity Schedule:
 - Sequence/steps to a specific routine, activity, or task: participation and engagement.

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Schedules

- Steps to developing a schedule.
 - Assess student learner characteristics.
 - Developmental level, visual discrimination skills, attention, motor ability.
 - Assess prerequisite skills.
 - Matching and discrimination.
 - Task analyze the routine, activity, or task.
 - Align with student learner characteristics.


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Schedules

- Steps to developing a schedule.
 - Determine the form of the schedule.
 - Object, picture, symbol, written, combination.
 - Determine the format of the schedule.
 - Vertical, horizontal; single, double, multiple; size
 - Determine the location for the schedule.
 - Ease of use.
 - Evaluate the student's level of independence.
 - Teach the student to use the schedule independently.
 - Initial Teaching: Verbal instruction with prompt & fade.
 - Maintenance: Shadow & graduate guidance.


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Example
Daily Classroom Schedule
Picture Format





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Example
Daily Classroom Schedule
Picture/Word Format

Math 

Science 

Lunch 

Music 

Art 

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Example
Daily Classroom Schedule
Written Format

- 9:05-9:45 PE
- 10:00-10:30 Math
- 10:30-11:30 Writing
- 11:30-12:00 Lunch
- 12:00-12:45 Science
- 12:45-2:00 Reading
- 2:05-3:00 Math
- 3:00-3:30 Recess

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Example: Student Specific Schedule

8:45-9:00	morning routine
9:00-10:00	SPECTAL
10:00-10:30	B, D, F- adaptive P.E.
10:30-10:45	B- science (Mr. Smith) D, F- social studies (Mrs. Boucher)
10:45-10:55	A, C- science (Mr. Smith) E- social studies (Mrs. Boucher)
10:45-10:55	sensory break
10:55-11:25	LUNCH
11:30-12:00	F/ counseling with Ms. Burns
11:30-12:00	C, E, word study
11:30-12:00	A, C, E- Speech & Language
12:00-1:00	Reader's Workshop
12:25-12:40	break
12:40-1:15	RECESS
1:45-2:15	RECESS & SNACK
2:15-3:00	Writer's Workshop
3:00-3:15	sensory BREAK
3:20-3:35	pack up, vb jobs, read aloud, listen to announcements

Example: Activity Schedules



- Put name on paper
- Read direction
- Answer questions
- Raise hand
- Show teacher
- Hand in assignment

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Example: Activity Schedules



- Hand up coat
- Empty Backpack
- Put School-Home Notebook in Bin
- Put Homework in Bin
- Go to your desk

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Learn More!

- View a self-guided training module and on Daily Visual Schedules developed by the RRCASD and download the training guide, visit the following website.
 - <https://www.urmc.rochester.edu/childrens-hospital/developmental-disabilities/RRCASD/Rochester-Regional-Center-for-Autism-Spectrum-Diso.aspx>

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Visual Supports

Organization
Clarity
Instruction

Visual Supports

- Visual supports can be used to....
 - assist with independent and appropriate classroom participation.
 - Prompts specific skills or behaviors needed to complete a routine, activity, task, and/or interaction.
 - direct student attention to relevant stimuli or parts of a task, direction, or situation to improve engagement.

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Visual Supports

- Visual supports...
 - **Organize** the environment around specific learning objectives, routines, activities, or tasks.
 - **Clarify** specific steps of a routine, activity, task, and/or behavior needed for participation.
 - **Instruct** the student on a routine, activity, and/or task by providing a model and/or task list/activity schedule.

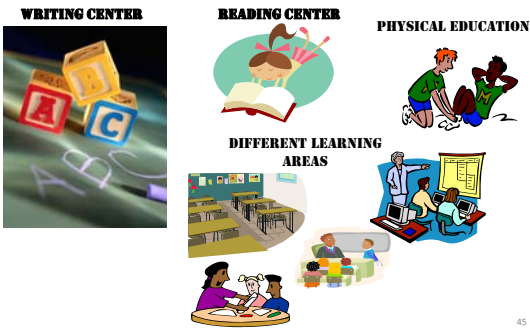
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Visual Supports

- Visual supports include....
 - Spatial arrangements.
 - Physical position, arrangement of materials.
 - Objects, photographs, pictures, symbols, written text, and combination of forms (e.g., photo/word).
 - Single.
 - Sets: sequences, as in scheduling systems.
 - Added stimuli...
 - Color highlight.
 - Arrows (with and without text).
 - Underlines, brackets, circle.

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Example: Organizing



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Examples: Organizing



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Example: Clarifying

Mary had **five** apples and she gave John **2**, how many apples did Mary have **left**?

Mary had five apples and she gave John 2, how many apples did Mary have left?

Mary had FIVE apples and she gave John TWO, how many apples did Mary have LEFT?

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Examples: Instructing



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Example: Instructing

Ask for Help	Sit
Ask Question	Look
Wait Turn	Listen
	Raise Hand

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Learn More!

- To learn more about the use of visual supports in ASD, visit the Autism Speaks website and download the Visual Supports Toolkit.
– <http://www.autismspeaks.org/science/resources-programs/autism-treatment-network/tools-you-can-use/visual-supports>

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Instructional Supports

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Instructional Supports

- Components of Quality Instruction.
 - Use of effective Behavior Supports.
 - minimizes disruptive behaviors and improves participation and readiness for learning.
 - Use of instructional supports to enhance participation and engagement.
 - Schedule and visual systems.
 - Alignment of the instruction with the student's instructional level.
 - Continuous assessment.
 - Evidence-based curriculum.
 - Evidenced-based instructional methods.

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Instructional Supports

- Components of Quality Instruction.
 - During lessons, create a high rate of Opportunities to Respond (OTR).
 - 4-6 per min for new information/9-12 per min for rehearsal.
 - Ensure a high ratio of Correct to Incorrect responding.
 - Approximately 4:1 (or 80% accuracy).
 - Use of Effective Error Correction strategies.
 - Errorless learning.
 - Use of effective prompting methods.

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Instructional Supports

- Students with ASD often require enhancement to the instructional context.
 - Activity schedules.
 - Various visual supports.
 - Social & functional communication supports.
 - Behavior supports.
 - Reinforcement system for academic engagement.
- Instructional modifications are also often needed to ensure student participation and engagement.

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Instructional Supports

- Determine what supports are needed for specific instructional sessions/learning objectives.
 - Be familiar with the curriculums you are using.
 - Be familiar with the student's learner characteristics.
 - Assess the student in each of the identified curriculums to ascertain instructional levels for each.
 - Assess the student's motivational level to identify needed behavior supports.

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Instructional Supports

- Common modifications include...
 - Modifying the level of difficulty.
 - Should be at the student's instructional level.
 - Determined through curriculum-based assessment.
 - Modifying the amount of information presented.
 - Less may be more!
 - Space out the amount of work to be completed across several practice sessions.

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Instructional Supports

- Common modifications include...
 - Selecting an instructional format that maximizes engagement...Differentiating Instruction.
 - Visual, auditory, multi-sensory, technology.
 - Group (small, large, cooperative), individual, community-based, independent.
 - Selecting activities & materials that maximize student interest and therefore, engagement.
 - Spatial arrangement; hands-on activity; paper-pencil; technology.
 - Student interest.

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Instructional Supports

- Common modifications include....
 - Creating multiple learning opportunities for learning through linkage with other content areas and learning objectives/goals.
 - Implementing a reinforcement system to increase learning and engagement (via increasing motivation to engage).
 - Modifying the required student response.
 - Multiple response formats should be considered, depending on student learner characteristics.
 - Point, write, speak, draw, type etc.
 - Use (assistive) technology.

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Evaluating Student Response to Intervention

Team Problem-solving

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Evaluation

- An interdisciplinary team approach is used in the MTPS model.
 - School-Home-Community Collaborative Model.
- Team applies a problem-solving framework to identify and solve student learning and behavioral difficulties.
 - Use ecological assessment data to guide decisions about.....
 - student support and intervention needs.
 - adjustments , modifications, and enhancements to the classroom or other instructional contexts that are needed to support student participation and engagement.
 - Continuous assessment.

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Problem-Solving

- The steps to problem solving include:
 - Problem Identification.
 - Define and measurable.
 - Problem Analysis.
 - Collect data.
 - Antecedents/root cause.
 - Consequences/maintaining variables.
 - Identify possible setting events (motivation.)
 - Plan Intervention(s).
 - What resources are needed?
 - How will resources be allocated?
 - Will there need to be additional assessment?

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Problem-Solving

- Implement Intervention(s).
 - Provide PD/Staff training; coaching, consultation.
 - Ensure integrity of implementation.
- Evaluate outcome.
 - Did it work?
 - Any negative collateral effects?
 - Will intervention(s) maintain improvement in the long run?
 - Complete any additional assessment that was recommended.
 - Revise intervention plan as appropriate.

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CASE EXAMPLE

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Case Study

- 12-year-old girl with ASD referred for occasional non-compliance and some mild disruptive behavior.
- Ecological Assessment
 - Student Learner Characteristics:
 - Record review.
 - Direct Observation-ABC Sheet
 - Classroom Survival Skill Checklist (Magyar, 2006/2010)
 - Instructional Context:
 - Classroom Observation Form (Magyar & Pandolfi, 2006/2010)
 - Academic Engagement Form (Magyar & Pandolfi, 2006/2010).
 - Interview of classroom staff.

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Case Example

- Student Learner Characteristics.
 - Cognitive: average, with some scatter (<PS & WM).
 - Language: functional communication impairments.
 - Sensory-Motor: fine-motor difficulties, affects writing.
 - Academic: at or above benchmark in all core.
 - Program Placement: general education classroom.

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Case Example

- Student Learner Characteristics.
 - Social-Emotional: social interest, but demonstrates anxiety, particularly in social and performance situations.
 - Behavior: occasional meltdowns (yell, cry, try to leave room).
 - Classroom Participation: requires numerous prompts to initiate and complete most routine tasks; easily distracted, appears non-compliant at times; doesn't always follow direction.

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Case Example

- Instructional Context.
 - Minimal ASD Universal Supports observed.
 - General classroom schedule posted, but not 'accessible' from all areas of room.
 - No student specific schedule evident.
 - No specific visual supports evident.
 - No specific communication supports observed.

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Case Example

- Instructional Context.
 - Classroom management system does not appear well developed/implemented.
 - Some of the expectations are not clear.
 - Infrequent review of expectations and explicit instruction of prosocial skills not observed.
 - Reinforcement not delivered consistently.
 - Hierarchy of corrective actions for disruptive behavior not observed.
 - Does not appear to be any evaluation of effectiveness of the system.

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Case Example

- Instructional Context.
 - Variability noted in instruction.
 - Whole group and independent seat work formats primarily, with some small group for core academics.
 - Multistep directions routinely given.
 - Generally low OTR and at times the pace of instruction was fast.
 - Variable engagement across students, across content areas.
 - Differentiated instruction not observed for some content areas (ELA, Math).
 - Less than effective error correction observed in some content areas (ELA, Social Studies).

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Case Example

- Tier 1 Support Recommendations.
 - Adjust daily classroom schedule format and placement.
 - Develop and implement a student specific schedule.
 - PD to improve classroom management system.
 - Develop and implement activity schedules for independent seat work and some classroom routines.
 - Develop and implement visual supports for routines and group participation skills.

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Case Example

- Tier 1 Support Recommendations.
 - Consultation on differentiating instruction, and simplifying directions.
 - Modify student response format for content areas with high writing demand.
 - Consultation to increase the rate of OTR for several core academic areas.
 - Develop and implement functional communication scripts for requesting assistance.
 - Develop and implement coping scripts for managing performance anxiety.

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Case Study

- Refer to team for additional assessment (Tier 2 & 3).
 - Targeted assessment (Tier 2) of
 - functional communication training,
 - social skills
 - social-emotional issues (e.g., anxiety)
 - FBA for disruptive behavior (Tier 3)

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Resources

- Magyar, C.I. (2011). *Developing and evaluating educational programs for students with autism*. Springer Publisher: NY.
- Magyar, C.I., & Pandolfi, V. (2012). Considerations for establishing a multi-tiered problem-solving model for students with autism and emotional-behavioral disorders. *Psychology in the Schools, Special Edition, 49*, 975-987.
- Wong, C., Odom, S. L.,... Schultz, T. R. (2013). *Evidence-based practices for children, youth, and young adults with Autism Spectrum Disorder*. Chapel Hill: The University of North Carolina, Frank Porter Graham Child Development Institute, Autism Evidence-Based Practice Review Group. Available online at <http://autismpdc.fpg.unc.edu/sites/autismpdc.fpg.unc.edu/files/2014-EBP-Report.pdf>

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Resources

- **Rochester Regional Center for Autism Spectrum Disorder (RRCASD).**
 - On-line educational resources, webinars, Information & Referral services.
 - Contact information:
 - Website: www.golisano.urmc.edu/rrcasd-nyautism
 - E-mail: rrcasd@urmc.rochester.edu
 - Tele: 1-855-508-8485
- **Autism Speaks:** website: www.autismspeaks.org
 - This site contains various toolkits and guides for home, school, work, safety, health/medical, etc.

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Question & Answer

A **Webinar Evaluation Survey** will be sent to your e-mail.
Please complete to receive a **Certificate of Attendance**.

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