Program Quality and Evidence-Based Practice for Students with Autism
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Acknowledgements

Participating Students, Families, and School Professionals

The Efficacy Student for Elementary Learners with Autism Spectrum Disorder (TESELA)

- Grant #R324A150047 from the Institute of Education Sciences, U.S. Department of Education

National Professional Development Center on ASD (NPDC)

Autism Focused Intervention Resources and Modules (AFIRM)

Supporting paraprofessional-Teachers use of Evidence-based practices with Learners with Autism Research (STELAR) grant

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FPG colleagues
Disclosure

Drs. Sam Odom and Ann Sam are among the authors of the Autism Program Environment Rating Scale, which will be published by Brookes Publishing Co. They have received modest honoraria for final development of the instrument, but royalties from the APERS will be donated to the National Clearinghouse for Autism Research and Practice.
Goal and for Presentation

- Understand the NPDC Model
  - Program quality
  - Identifying Goals for Students
  - Selecting EBPs Based on Goals
  - Progress Monitoring
National Professional Development Center on ASD
Goals of the National Center

- Promote development, learning, and achievement of students with ASD and support families through use of evidence-based practices (EBP)
- Increase state capacity to implement evidence-based practices
- Increase the number of highly qualified personnel serving students with ASD
- Began in 2007 and worked with Departments of Education in 12 states and more than 75 schools
NPDC Model

Model

Assessment → Implementation → Outcomes

Training

Program Quality (APERS)
Learner IEP Goals (GAS)
Family/Learner Strengths, Interests, & History
Team Member Experience & Knowledge

Selection of EBPs

Implementation of EBPs with Fidelity

Program Quality (APERS)
Learner Progress (GAS)
Data Collection

COACHING
Components of NPDC Model

- Strengthen the quality of the program
- Specify and scale student goals
- Select, implement, and assess progress of intervention (EBPs)
- Coaching process
Strengthening the Quality of the Program

AUTISM PROGRAM ENVIRONMENT RATING SCALE - APERS
NPDC

Coaching Process

Initial Start-up

Assess Program Quality APERS

Fall (within first 6 weeks)

Identify Goals and Scale GAS

Select and Use EBP with Fidelity

Measure Outcomes
What are the elements of high quality educational programs for children with ASD?
Autism Program Environment Rating Scale: What is it?

- Two versions: PE and MHS
- APERS-PE: 59 items across 10 domains/subdomains
- Administered by research staff at two time points: early fall and late spring.
- Yields information that identifies program strengths and areas in need of improvement; measure of change in program quality
APERS Data Collection

- **Observation** – 6 hours (variety of settings at school)

- **Interviews** – approx. 7; parents, teachers/team members, administration

- **Record Review** – 3 target students, different program types and ages
Cross-Cultural Content Validity of the Autism Program Environment Rating Scale in Sweden

Hampus Bejnö¹ · Lise Roll-Pettersson¹ · Lars Klintwall² · Ulrika Långh³,⁴,⁵ · Samuel L. Odom⁶ · Sven Bölte³,⁴,⁷,⁸

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Autism Program Environment Rating Scale

- Interviews
- Record Review
- Observations

Scoring

Debrief Report
## APERS Sample Item

<table>
<thead>
<tr>
<th>Curriculum and Instruction</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>26°, ^EQ □ Team members consistently over-prompt students during instruction. □ Team members consistently under-prompt or use no prompts during instruction. □ When team members use prompts only one form is used with students (e.g., physical, verbal, gestural).</td>
<td>3</td>
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<td>□ When needed, key team member uses a clear prompting hierarchy during instruction (e.g., less intensive prompts followed by increased support as needed). □ When needed, key team member uses a variety of prompts during instruction to meet individual student needs (e.g., physical, verbal, gestural).</td>
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<td>□ When needed, team members use a clear prompting hierarchy during instruction (e.g., less intensive prompts, graduated guidance, simultaneous instruction). □ When needed, team members use a variety of prompts to meet individual student needs.</td>
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APERS Profile in Report

APERS Profile by Domain

- Learning Environment
- Positive Classroom Climate
- Assessment and IEP Dev.
- Curriculum and Instruction
- Communication
- Social Competence
- Personal Ind./Competence
- Functional Behavior
- Family Involvement
- Teaming
- Overall Score
How Do We Use the Results?

- Share the results as a profile of the school program with A-team
- Discuss and identify recommendations for improvement
- Identify resources/training for improvement
- Provide technical assistance and coaching to team and teachers
Results from TESELA Study
Evidence-based Practices
Selecting and Using EBPs
SECTION 4: EBPs

- From IEP to EBP
- Selecting EBP
- Implementing EBP
- EBP Training
From IEP to EBP
TESELA Study Timeline

Coaching Process

1. Initial Start-up
2. Assess Program Quality APERS
3. Identify Goals and Scale GAS
4. Select and Use EBP with Fidelity
5. Measure Outcomes

Fall (within first 8 weeks)
## Goal Attainment Scale

<table>
<thead>
<tr>
<th>PRESENT LEVEL OF PERFORMANCE (BASELINE)</th>
<th>0</th>
<th>Level of current performance for the target behavior. Based on data and includes prompting strategies, settings, persons, materials, etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>INITIAL OBJECTIVE</td>
<td>1</td>
<td>Determine initial objective based on the present level of performance and the annual goal.</td>
</tr>
<tr>
<td>SECONDARY OBJECTIVE</td>
<td>2</td>
<td>Determine secondary objective based on initial objective and annual goal.</td>
</tr>
<tr>
<td>ANNUAL GOAL</td>
<td>3</td>
<td>Based on the present level of performance, develop a measurable and observable annual goal (includes antecedent, behavior, and criteria).</td>
</tr>
<tr>
<td>EXCEEDS ANNUAL GOAL</td>
<td>4</td>
<td>Determine exceeds annual goal based on annual goal.</td>
</tr>
</tbody>
</table>
TESELA Initial Start Up Timeline

Training Academy
(before school starts)

GAS training – ½ day
(first 4 weeks of school)

APERS – TESELA staff
(first 6 weeks of school)

School/Student Planning Workshop – ½ day
(first 8 weeks of school)
TESELA Study Timeline

Coaching Process

Initial Start-up
Assess Program Quality APERS
Identify Goals and Scale GAS
Select and Use EBP with Fidelity
Measure Outcomes

Fall, Winter, Spring

Refer to Handout 1: TESELA Study Timeline
What Are EBPs?

**Focused interventions that:**

- Produce specific behavioral and developmental outcomes for a child
- Have been demonstrated as effective in applied research literature
- Can be successfully implemented in educational settings

(Odom, Colett-Klingenberg, Rogers, & Hatton, 2010)
<table>
<thead>
<tr>
<th>Evidence-Based Practices</th>
<th>0-5 Years</th>
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### Instructional Domains

#### Table 6. Outcomes Identified In Studies

<table>
<thead>
<tr>
<th>Outcomes related to</th>
<th>Studies (n)</th>
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<tbody>
<tr>
<td>Social</td>
<td>165</td>
</tr>
<tr>
<td>Skills needed to interact with others</td>
<td></td>
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<tr>
<td>Communication</td>
<td>182</td>
</tr>
<tr>
<td>Ability to express wants, needs, choices, feelings, or ideas</td>
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<tr>
<td>Challenging/Interfering Behaviors</td>
<td>158</td>
</tr>
<tr>
<td>Decreasing or eliminating behaviors that interfere with the individual's ability to learn</td>
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<tr>
<td>Joint Attention</td>
<td>39</td>
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<tr>
<td>Behaviors needed for sharing interests and/or experiences</td>
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<tr>
<td>Play</td>
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<td>Use of toys or leisure materials</td>
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<td>Cognitive</td>
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<td>Performance on measures of intelligence, executive function, problem solving, information processing, reasoning, theory of mind, memory, creativity, or attention</td>
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<tr>
<td>School Readiness Skills</td>
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<tr>
<td>Performance during a task that is not directly related to task content</td>
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<tr>
<td>Pre-Academic/Academic</td>
<td>58</td>
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<tr>
<td>Performance on tasks typically taught and used in school settings</td>
<td></td>
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<tr>
<td>Motor</td>
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<td>Movement or motion, including both fine and gross motor skills, or related to sensory system/sensory functioning</td>
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<tr>
<td>Adaptive/Self-Help</td>
<td>55</td>
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<tr>
<td>Independent living skills and personal care skills</td>
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<td>Vocational</td>
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<td>Employment or employment preparation or relate to technical skills required for a specific job</td>
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<tr>
<td>Mental Health</td>
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<tr>
<td>Emotional well-being</td>
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Process for Choosing and Using the EBP
The EBP Process

- Select and Plan for EBP
- Implement with Fidelity
- Assess Progress
When Selecting EBP Consider:

- Child & Family Characteristics
- Clues found in the Outcome/Goal
- Teacher/Team Characteristics
- Other Resources Available
Implementing EBPs

Where do I turn?
Now what?
Next steps?
How do I know what to do?
Autism Focused Intervention Resources & Modules - AFIRM

- **E-learning modules for 27 EBPs**
  - [http://afirm.fpg.unc.edu/](http://afirm.fpg.unc.edu/)

- **Target audience**
  - Special educators
  - General education teachers
  - Related service personnel
  - Early interventionists

- **Planning, using, monitoring EBPs**
Websites and Resources

NPDC: https://autismpdc.fpg.unc.edu/national-professional-development-center-autism-spectrum-disorder
AFIRM: https://afirm.fpg.unc.edu/node/137
NCAEP: https://ncaep.fpg.unc.edu
CSESA: https://csesa.fpg.unc.edu
Questions and Discussion