Effectiveness of Classroom Pivotal Response Teaching: A Pilot Study

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Thank you

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• **Advisory Board:**
  – Cindy Bolduc
  – Patricia Belden,
  – Thesa Jolly
  – Catherine Pope
  – Linda Reeve
  – Lauren Ungar,
Autism

- Increasing prevalence
  - 10 per 1000 children (1 in 88)
- Special education enrollment for ASD has quadrupling nationwide since 2000 (Scull & Winkler, 2011).

<table>
<thead>
<tr>
<th>Year</th>
<th># Students</th>
<th>% Special Educ.</th>
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<tr>
<td>2001</td>
<td>17,508</td>
<td>2.6%</td>
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<tr>
<td>2010</td>
<td>59,690</td>
<td>8.8%</td>
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Autism Intervention in the Classroom

• Limited research on EBP for ASD in the classroom
• Adapted classroom versions have not been thoroughly tested
Collaborative Research Practice

Research
Pivotal Response Training

- Evidence-based practice
- Naturalistic behavioral intervention
- Applied Behavior Analysis
- Motivation-based
- Developed as a parent education model for use in one-on-one settings
PRT in the Classroom

• 70% of teachers surveyed reported using PRT (or a modified version) in their classrooms.

• We needed more information about the adaptations teachers were using.
Adapting PRT for the Classroom

Phase

One
Focus Groups

Two
Test possible changes

Three
Develop manualized program

Four
Pilot test adapted model

Advisory Board Feedback at each Stage
Methods: Participants

- 5 Districts
- 20 Teachers
- 37 Target Students
Methods: Study Design

- Multiple baseline across participants

**Data**
- Classroom Observations
- Semi-Weekly by Classroom Observations
- Observation & PLS

**Phase**
- Student Assessment

**Methods: Study Design**
- Semi-Weekly Classroom Observations
- Baseline Student Assessments
- CPRT Training
- ADOS & PLS Data

**Follow-Up Training**
- Six 2-hour meetings with feedback visits
- 8 weeks
- 2 months

**Phase**
- Classroom Coaching Visits
- 2–4 weeks
Methods: Measures

- Teacher CPRT Fidelity (multiple baseline)
- Student engagement in classroom activities (baseline & training)
- Student standardized communication measures (pre-training & follow-up)
# CPRT Fidelity

<table>
<thead>
<tr>
<th>Maximizes motivation</th>
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<tr>
<td>- Child choice</td>
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<tr>
<td>- Turn taking</td>
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<td>- Easy &amp; difficult tasks</td>
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<th>Facilitates responding</th>
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<tr>
<td>- Student attention</td>
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<td>- Clear cues</td>
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<th>Appropriate consequences</th>
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<tr>
<td>- Contingent consequences</td>
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<tr>
<td>- Direct reinforcement</td>
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<tr>
<td>- Reinforcement of attempts</td>
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Results: CPRT Fidelity

Average Score

Observation Number

CPRT Training

Motivation
Responding
Consequences
Results: CPRT Fidelity

CPRT Training

Average Score vs. Observation Number

Motivation
Responding
Consequences

Observation Number
Results: Student Engagement

Proportion of Activity

**Baseline** vs **Training**

* * p < .05
Results: Student Communication

Number of Students

Communication Skills Change

Decline
No Change
Limited
Month for Month
Accelerated
Teacher Response

• “[Student] retention of the materials that I’m teaching them is much higher when I use CPRT-type methodology.”

• “[My students] are more engaged. They are more excited about what they are doing. They are able to attend for a longer period of time. And when you are working with third graders who are reluctant readers, that ability to attend a little longer and get a partial task finished is really helpful.”

• “I am just really grateful for this opportunity. Thank you, thank you, thank you.”
Conclusions

• Feasible and well received by teachers
• Difficulties with maintenance
• Student gains warrant further study
  – Classroom engagement
  – Communication
Future Directions

- Large scale effectiveness trial in San Diego county
- Sustainable training models
Thank you!