**PROBLEM**

- Children from low-income families enter school already behind on measures of important literacy skills (NELP, 2008).
- Even given excellent teaching, about 20% of these children are likely to need additional individual instruction if they are to close the gap with their peers (Whitehurst & Fischel, 2000).
- RTI is one approach to preventing future reading difficulties and closing the gap for low-income children (Gettler & Stoiber, 2009).
- Few descriptions are available of the characteristics of children who may need additional support through RTI (demographics, scores).
- Few studies of RTI interventions have been conducted with preschool children.

**RESEARCH QUESTIONS**

1. What are the demographic characteristics of children who meet the criteria for Tier 2 (tutoring) in comparison to classroom peers when children with IEPs are included?
2. What are the demographic and skill characteristics of low income children eligible for Tier 2 when children with IEPs are excluded?
3. How do results for low-income children receiving both Tier 1 and Tier 2 tutoring compare to those of low-income children not eligible for tutoring, receiving only Tier 1?

**CLASSROOM CONTEXT**

- 16 classrooms in four programs in an Early Reading First site in a small city in the Midwest.
- Sites include District pre-K (8 classrooms), Head Start (3), Community college child care (2), Community agency childcare (3).
- Most classrooms (12) directed primarily toward children at risk based on income; 4 classrooms blended and include children with disabilities; all children were eligible for Kindergarten in following year.
- Lead teachers – 62% Bachelor’s or above; Assistant teachers – 75% Associate degree.
- Implementation of TROPHIES Curriculum in all classrooms; intensive professional development including weekly coaching.

**TUTORING PROCEDURES**

- The DELL-D Project
  - Presented by: Dr. Jeanette McCollum and Dr. Angel Fettig, DELL-D Project, Department of Special Education, College of Education, University of Illinois at Urbana-Champaign
  - This project is supported by an Early Reading First grant from the U.S. Department of Education; presented at 2010 CRIE Conference, San Diego

- Question 1: What are the demographic characteristics of children who meet the criteria for Tier 2 (tutoring) in comparison to classroom peers when children with IEPs are included?

**RESULTS**

**Demographics of All Children Selected for Tier 2 in Comparison to Peers**

<table>
<thead>
<tr>
<th>Characteristic/Group</th>
<th>Children Selected for Tier 2 (n=131)</th>
<th>Other DELL-D Children (n=1,527)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male 48 (37)</td>
<td>523 (34)</td>
</tr>
<tr>
<td></td>
<td>Female 83 (63)</td>
<td>974 (66)</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>Caucasian 97 (74)</td>
<td>1,102 (72)</td>
</tr>
<tr>
<td></td>
<td>African-American 33 (25)</td>
<td>308 (20)</td>
</tr>
<tr>
<td></td>
<td>Hispanic 11 (8)</td>
<td>120 (8)</td>
</tr>
<tr>
<td>Income</td>
<td>Below benchmark 88 (67)</td>
<td>1,122 (74)</td>
</tr>
<tr>
<td></td>
<td>Above benchmark 43 (33)</td>
<td>405 (27)</td>
</tr>
</tbody>
</table>

**Summary**

- 29% of children were eligible for Tier 2
- Greater proportions of children were from low-income families, had IEPs, and were in their 1st year of DELL-D
- There were significant relationships among these variables (e.g., proportionately more children with IEPs selected for Tier 2, greater proportion of Caucasian children among children with IEPs)

**Questions:**

**Question 2:** What are the demographic and skill characteristics of low-income children eligible for Tier 2 in comparison to classroom peers when children with IEPs are excluded?

- Few descriptions are available of the characteristics of children who may need additional support through RTI (demographics, scores).
- Few studies of RTI interventions have been conducted with preschool children.

**Question 3:** How do results for low-income children receiving both Tier 1 and Tier 2 tutoring compare to those of low-income children not eligible for tutoring, receiving only Tier 1?

**DISCUSSION**

- **Screening (GOM) - Fall and Winter - 10 measures**
  - PALS PreK-K
  - IDGs (3)
  - PPVT - IV
  - ISELS Story Comprehension

- **Selection of Children for Tier 2**
  - Initial selection - based on fall assessment and mid-year assessment
  - SS standard score on PPVT and below benchmark on letter naming and/or comprehension
  - OR baseline score on letter naming and comprehension
  - OR two months with no progress on CBMs related to curriculum or no progress on GOMs from fall to winter assessment
  - Maintaining in Tier 2 - GOM at mid-year; same criteria

- **Tutoring Intervention**
  - Group tutoring, twice per week, approximately 30 minutes; average of 34 intervention sessions per child during school year (range: 20-40)
  - Specific format of intervention targets across the week
  - Storybooks provided to match curriculum themes; phonological awareness games provided; tutor plans activities, implement specific strategies
  - Tutors - retired teachers (3) and graduate students in ECSE (4)
  - Fidelity - tutoring protocol: average of 88.1% (range: 50-100)

- **IMPLICATIONS**

  - While gaps were not closed, children receiving Tier 2 instruction moved toward their peers in 7/10 areas (2 significant)
  - It appears that the tutoring intervention used here may supply added value to the general Tier 1 curriculum for children who are most at risk
  - Additional discussion is needed of the intersectionality between special education and RTI; in the current sample, children with IEPs comprised a disproportionate number of those receiving Tier 2, based solely on their scores on the screening instruments.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Children in Tier 2 (n=131)</th>
<th>Other DELL-D Children (n=1,527)</th>
<th>ANOVA Compairisons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-K</td>
<td>Mean</td>
<td>Mdn</td>
<td>SD</td>
</tr>
<tr>
<td>Reading</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>10.10</td>
<td>9.37</td>
<td>9.45</td>
</tr>
<tr>
<td>PALS</td>
<td>20.39</td>
<td>18.02</td>
<td>16.26</td>
</tr>
<tr>
<td>Sounds</td>
<td>12.29</td>
<td>11.64</td>
<td>11.21</td>
</tr>
<tr>
<td>Concepts</td>
<td>12.29</td>
<td>11.64</td>
<td>11.21</td>
</tr>
<tr>
<td>Listening</td>
<td>12.29</td>
<td>11.64</td>
<td>11.21</td>
</tr>
<tr>
<td>Writing</td>
<td>13.64</td>
<td>12.87</td>
<td>12.21</td>
</tr>
<tr>
<td>Performance</td>
<td>12.29</td>
<td>11.64</td>
<td>11.21</td>
</tr>
</tbody>
</table>

**Summary—Comparison of Gain Scores**

- Gains made by children in Tier 2 were larger than Tier 1 children in 7/10 areas measured (significant differences in print concepts and story comprehension)
- Children in Tier 1 made larger gains in 3/10 areas (significant difference in letter sounds)
- Generally, children in Tier 2 did not lose ground in comparison to peers, and were moving back closing gaps in several areas
- Higher gains by children in Tier 1 tended to be in more advanced “code-related” areas (lower-case letters, letter sounds, alliteration), whereas higher gains in children in Tier 2 tended to be in “meaning-related” areas (vocabulary, word meaning, rhyme recognition) as well as in less-advanced code-related areas (capital letters, print concepts, name writing)

**IMPLICATIONS**

- While gaps were not closed, children receiving Tier 2 instruction moved toward their peers in 7/10 areas (2 significant)
- It appears that the tutoring intervention used here may supply added value to the general Tier 1 curriculum for children who are most at risk
- Additional discussion is needed of the intersectionality between special education and RTI; in the current sample, children with IEPs comprised a disproportionate number of those receiving Tier 2, based solely on their scores on the screening instruments.