easyCBM Beginning Reading & Interventions

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Slides modified for web publication
BRT easyCBMResearch

- Study 1: Kindergarten Growth Modeling
- Study 2: K-2 Beginning Reading Relations
- Study 3: Teacher Intervention Reporting
Study 1: Kindergarten Growth Modeling

(Sáez, Lai, Alonzo, & Tindal 2014)
Study 1: Kindergarten Growth Modeling Methods

- Repeatedly administered alternate forms of easyCBM kindergarten LNF, LSF, PSF, and WRF measures across 5 time points (Nov, Dec, Feb, April, and June during the 2012-2013 school year)

- We tested 201 unselected children attending half-day kindergarten across three schools within a local school district
Study 1: Take Home Messages

• Two distinct growth patterns were evident (normative & exceptional) in each kindergarten beginning reading fluency skill examined

• Only for LSF did both intercept and slope reliably predict kindergarten June WRF performance

• Very high probability of strong June WRF for above-average LSF group (81% likelihood of reading at 75th percentile); High probability of weak June WRF for below average PSF group (68% likelihood of reading at 25th percentile)
Study 2: K-2 Fluency Relations

K-LSF 1-WRF 2-PRF

How does beginning reading skills fluency development impact later passage reading fluency?

(Sáez, Nese, Alonzo, & Tindal 2014)
Study 2: Fluency Relations Method

• Used extant data from 2,302 students from 15 districts in the Pacific Northwest during the 2009-2012 school years

• Divided sample into three fluency groups based on Grade 2 PRF:
  *High* (n = 573 performing > 75\textsuperscript{th} percentile)
  *Average* (n = 1148 performing <75\textsuperscript{th} > 26\textsuperscript{th} percentile)
  *Low* (n = 581 performing < 26\textsuperscript{th} percentile)

• We retrospectively modeled easyCBM fluency relations (intercepts/entry performance and growth) over time using K-LSF, 1-WRF, and 2-PRF
Study 2 Take Home Message

• Early lag in kindergarten LSF growth for the low fluency group contributed to progressively weak reading development over time

• Fluency intercepts and growth impacted the emergence of subsequent K-2 skill fluency (although not always for students in the low fluency group, suggesting a disruption to expected and necessary developmental relations)
Study 3: Intervention Reporting

(Sáez, 2012)
Study 3: Intervention Reporting Sample

- OR = 442 students
  - 43 schools
  - 10 districts

- WA = 49 students
  - 8 schools
  - 3 districts

- IL = 44 students
  - 6 schools
  - 3 districts

- TX = 12 students
  - 1 school
  - 1 district
Study 3: Reported Intervention Frequency

<table>
<thead>
<tr>
<th>Total Number of Reported Reading Interventions Implemented Across School Year</th>
<th>Student N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>355 (64.9%)</td>
</tr>
<tr>
<td>2</td>
<td>138 (25.2%)</td>
</tr>
<tr>
<td>3</td>
<td>25 (4.6%)</td>
</tr>
<tr>
<td>4 or more</td>
<td>29 (5.3%)</td>
</tr>
</tbody>
</table>
Study 3: 4th Grade Intervention Skill Emphasis

- RC: 21.2%
- VOC: 7.8%
- Fluency: 38.8%
- Word ID: 32.2%
Study 3: Reported Intensity of 1\textsuperscript{st} Intervention

<table>
<thead>
<tr>
<th>Number of Days Per Week</th>
<th>Percent of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>23.4%</td>
</tr>
<tr>
<td>4</td>
<td>51.1%</td>
</tr>
<tr>
<td>3</td>
<td>9.7%</td>
</tr>
<tr>
<td>2</td>
<td>15.5%</td>
</tr>
<tr>
<td>1</td>
<td>1.1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of Minutes Per Day</th>
<th>Percent of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than 60</td>
<td>4.4%</td>
</tr>
<tr>
<td>60</td>
<td>13.9%</td>
</tr>
<tr>
<td>30-59</td>
<td>59.3%</td>
</tr>
<tr>
<td>Less than 30</td>
<td>21.9%</td>
</tr>
</tbody>
</table>
Study 3: Percent of Reported Interventions Occurring Across the School Year

![Bar Chart]

- **X-axis**: Months of the school year (Aug, Sep, Oct, Nov, Dec, Jan, Feb, Mar, Apr)
- **Y-axis**: Percentage
- **Legend**:
  - 1st Intervention
  - 2nd Intervention
**Study 3: Reported Instructional Changes Between 1\textsuperscript{st} and 2\textsuperscript{nd} Interventions**

<table>
<thead>
<tr>
<th>Intervention Change</th>
<th>Percent of Total Intervention Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructional Program/Curricula</td>
<td>50.0%</td>
</tr>
<tr>
<td>Intensity (duration and/or frequency)</td>
<td>18.7%</td>
</tr>
<tr>
<td>Tier or Teacher</td>
<td>6.1%</td>
</tr>
<tr>
<td>Group Size</td>
<td>6.1%</td>
</tr>
<tr>
<td>Addition of Progress Monitoring</td>
<td>1.3%</td>
</tr>
</tbody>
</table>
Study 3 Take Home Message

• 1-2 reading interventions were reported across the school year in 4th grade (2010-2011)

• 1st intervention most likely to be intensive and focused on building word identification & fluency

• Interventions were implemented mainly during the first half of the school year

• Most frequent changes to the 1st intervention were curricular/program
For More Information

http://www.brtprojects.org
http://easyCBM.com