The Success and Science Behind a “Boxed Program” called PALS
(Peer Assisted Learning Strategies)

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The Context

“A mish-mash of teaching approaches”
The Program

Peer-Assisted Learning Program

- Supplementary
- 3 days per week
- 30-35 minutes
- Folders, activities and timed
- 70 lessons
- Activities completed in pairs: Coach & Reader
- Complete activity and switch roles
- Teacher monitors pairs
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<table>
<thead>
<tr>
<th>Kindergarten (K-PALS)</th>
<th>Grade 1 (Grade 1 PALS)</th>
<th>Grade 2-6 (Grade x PALS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phonological Awareness</td>
<td>Decoding</td>
<td>Reading fluency</td>
</tr>
<tr>
<td>Letter-sound correspondence</td>
<td>Fluency</td>
<td>Comprehension</td>
</tr>
<tr>
<td>Decoding</td>
<td>Comprehension</td>
<td>Summarizing, retelling, predicting</td>
</tr>
<tr>
<td>Sight Words</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
LESSON 6

COACH SAYS:

What sound?

sam

s

mat

s

1. Sound it out.
2. Read it fast.

am

Sam

at

mat

sat

Sam

Sam is at the fuzzy mat.

Read the story.

Read the words.

and is the the is and is
the and is and is the is
the is and the is and is
is is the is and the and
is and the is the and the

fuzzy

rocket words

Go back to “Read the words.”
Progress Monitoring

Developmental Reading Assessment (DRA)
- Teachers did this already: 2 passages, 30 minute assessment each
- Twice a year: October and June
- Three years of data for comparison (2 years before PALS vs PALS year)
- Designed to measure reading comprehension

Curriculum-Based Measurement (CBM)
- New to this district
- Weekly & Benchmarking for all: 5 data points
- Done by PALS teachers, 1 minute assessment each
- Sensitive for showing response to intervention
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END of YEAR GOALS

DRA
Students should be at level 14-16 by the end of the year

CBM
Students should be able to read 50 words per minute without error
<table>
<thead>
<tr>
<th>Group</th>
<th>$n$</th>
<th>LSF Baseline $M$ (SD)</th>
<th>$F$</th>
<th>WIF Baseline $M$ (SD)</th>
<th>$F$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>231</td>
<td>17.95 (12.34)</td>
<td>6.88*</td>
<td>234</td>
<td>9.50 (16.31)</td>
</tr>
<tr>
<td>Female</td>
<td>197</td>
<td>21.08 (12.28)</td>
<td></td>
<td>202</td>
<td>12.42 (17.88)</td>
</tr>
<tr>
<td>First Nations</td>
<td>74</td>
<td>14.11 (10.85)</td>
<td>16.84**</td>
<td>77</td>
<td>5.92 (10.98)</td>
</tr>
<tr>
<td>Non First Nations</td>
<td>354</td>
<td>20.49 (12.43)</td>
<td></td>
<td>359</td>
<td>11.91 (17.98)</td>
</tr>
<tr>
<td>At-Risk$^1$</td>
<td>197</td>
<td>9.26 (5.95)</td>
<td>130.12**</td>
<td>338</td>
<td>3.25 (3.74)</td>
</tr>
<tr>
<td>Not At-Risk</td>
<td>231</td>
<td>28.03 (9.62)</td>
<td></td>
<td>98</td>
<td>37.05 (19.17)</td>
</tr>
</tbody>
</table>

*Note. First Nations includes students who are self-identified to the school board by parent or guardian.
It also includes students in the district identified as Métis ($n=4$) and Inuit ($n=0$).
$^1$At-Risk (AR) at baseline includes any student who scored below the cut-score (LSF<19, WIF<15) on either test.
* Significant difference between groups $p < 0.05$
** Significant difference between groups $p < 0.001$
DRA Baseline before PALS began

Percentage of Students at Each DRA Level

Reading Stage As Determined by October DRA Level for Grade 1

<table>
<thead>
<tr>
<th>Year</th>
<th>Baseline before PALS began</th>
<th>PALS Year</th>
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</thead>
<tbody>
<tr>
<td>2007-2008</td>
<td>88.38</td>
<td>92.36</td>
</tr>
<tr>
<td>2008-2009</td>
<td></td>
<td>92.44</td>
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<tr>
<td>2009-2010</td>
<td></td>
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</tbody>
</table>
So, was PALS effective?
Percentage of Students at Each DRA Level

Reading Stage As Determined by June DRA Level for Grade 1


- 2007-2008: 68%
- 2008-2009: 71%
- 2009-2010: 77%
### Straight-Line Slope for WIF CBM by Group

<table>
<thead>
<tr>
<th>Group</th>
<th>Sex</th>
<th>Sex</th>
<th>Baseline (SD)</th>
<th>Lesson 68 (SD)</th>
<th>ΔM</th>
<th>Slope</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire Board</td>
<td>Male</td>
<td>234</td>
<td>9.50 (16.31)</td>
<td>59.71 (27.54)</td>
<td>50.21</td>
<td>1.52</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>202</td>
<td>12.42 (17.88)</td>
<td>64.87 (25.25)</td>
<td>52.45</td>
<td>1.60</td>
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<tr>
<td></td>
<td>Total</td>
<td>436</td>
<td>10.85 (17.10)</td>
<td>62.12 (26.59)</td>
<td>51.27</td>
<td>1.55</td>
</tr>
<tr>
<td>First Nations</td>
<td>Male</td>
<td>43</td>
<td>4.56 (11.77)</td>
<td>51.31 (30.67)</td>
<td>46.75</td>
<td>1.42</td>
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<tr>
<td></td>
<td>Female</td>
<td>34</td>
<td>7.65 (9.79)</td>
<td>52.94 (29.09)</td>
<td>45.29</td>
<td>1.37</td>
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<tr>
<td></td>
<td>Total</td>
<td>77</td>
<td>5.92 (10.98)</td>
<td>52.04 (29.79)</td>
<td>46.12</td>
<td>1.40</td>
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<tr>
<td>NonFirst Nations</td>
<td>Male</td>
<td>191</td>
<td>10.61 (17.00)</td>
<td>61.59 (26.52)</td>
<td>50.98</td>
<td>1.54</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>168</td>
<td>13.38 (18.98)</td>
<td>67.29 (23.77)</td>
<td>53.91</td>
<td>1.63</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>359</td>
<td>11.91 (17.98)</td>
<td>64.28 (25.38)</td>
<td>52.37</td>
<td>1.59</td>
</tr>
<tr>
<td>At-Risk¹</td>
<td>Male</td>
<td>192</td>
<td>2.90 (3.53)</td>
<td>53.59 (25.53)</td>
<td>50.69</td>
<td>1.54</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>147</td>
<td>3.85 (4.29)</td>
<td>57.34 (23.92)</td>
<td>53.49</td>
<td>1.62</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>339</td>
<td>3.25 (3.74)</td>
<td>55.24 (24.87)</td>
<td>51.99</td>
<td>1.58</td>
</tr>
<tr>
<td>Not At-Risk</td>
<td>Male</td>
<td>42</td>
<td>39.64 (17.88)</td>
<td>86.93(18.24)</td>
<td>47.29</td>
<td>1.43</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>55</td>
<td>35.11 (20.02)</td>
<td>85.35(16.77)</td>
<td>50.24</td>
<td>1.52</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>97</td>
<td>37.05 (19.17)</td>
<td>86.04(16.77)</td>
<td>48.99</td>
<td>1.48</td>
</tr>
</tbody>
</table>
Percentages of all students at or above the provincial standard of Level 3 or 4
Comparisons of Subgroups: Boys vs. Girls

- CBM score per Minute
- Benchmark Lesson
- GOAL

Graph shows comparisons between Boys and Girls in WIF and LSF scores across different lessons and benchmark.

- Boys WIF
- Girls WIF
- Boys LSF
- Girls LSF
Comparisons of Subgroups: First Nations vs. Non-FN

**CBM Score per Minute**

- **NonFN WIF** (Orange Line)
- **FN WIF** (Green Line)
- **NonFN LSF** (Orange Dash Line)
- **FN LSF** (Green Dash Line)

**Axes:**
- **Y-Axis:** CBM Score per Minute
- **X-Axis:** Benchmark Lesson

- Baseline
- Lesson 20
- Lesson 36
- Lesson 52
- Lesson 68

**Goal:**

- GOAL
Comparisons of Subgroups: At-Risk vs. Non-AR

- Not AR WIF
- AR Baseline WIF
- Not AR LSF
- AR Baseline LSF

CBM Score per Minute

Baseline Lesson 20 Lesson 36 Benchmark Lesson Lesson 52 Lesson 68

GOAL
So why did PALS work?

1. It provided a systematic approach to teaching and practicing the foundational components necessary for reading

2. The CBM provided the monitoring necessary to focus intentional and additional help to students

3. PALS uses a balanced approach to teaching reading skills, and ties skill training in with text reading: purposeful, meaningful

4. Short, supplemental, children work in pairs, motivational*...and children see results
Contact information

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