Findings from evaluations of professional development models: Supporting high quality early childhood education curricula in subsidized child care centers

Child Care Policy Research Consortium

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Solving problems, guiding decisions - worldwide
Study rationale

• Study funded by Child Care Bureau and the Office for Planning, Research and Evaluation (OPRE) within ACF
• Federal government concerned with how child care subsidy policies and quality improvement efforts could improve outcomes for children
• Miami-Dade School Readiness Coalition concerned with findings of poor language development of 4-year-old subsidized children (lowest third nationally)

• SRC = county’s fiscal agent for CCDF subsidy & quality improvement funds
• One of four experiments
• SRC paid for intervention, HHS contract paid for the evaluation
• Quality $ constitute 4% of subsidy funding set aside (with state matching funds) for improving child care quality.
• SRC selected the 3 curricula through a panel review process

• Child Care and Development Fund (CCDF) administered by Child Care Bureau, provides subsidies for child care for children of low-income working parents, whose eligibility is determined by states within broad federal guidelines.
Research questions for study

• Does training in and ongoing support for child care teachers implementing high-quality language and literacy curricula lead to:
  1. High-fidelity implementation of curricula
  2. Positive effects on instructional behavior, interactions and classroom environment

• What kinds of professional development are needed to produce these intermediate outcomes?

• Do the curricula have meaningful effects on children’s language and emergent literacy skills
Study design

- Random assignment of 162 centers to three language and literacy curricula (n=36 each) or to an “as is” control group (n=54)

- One four-year-old classroom in each center

- Intervention teachers received training over two years:
  - Initial group training (2-3 days)—late fall of 1st year
  - Bimonthly visit from coach/mentor trained to support one of the curricula
  - Additional group training in fall of 2nd year
Spanish-speaking—some bilingual; English-speaking—monolingual; Other languages: include Haitian Kreyol

In 2001 > ½ of county’s residents were born outside the US. County demographics:
57% Hispanic
24% Non-Hispanic White
19% Non-Hispanic Black
Intervention curricula

- All three based on most recent research on what predicts reading success
- All focused on development of language and literacy skills
- Differed in instructional approach, materials provided, use of technology, intensity and cost
Intervention curricula (2)

- **Ready, Set, Leap (RSL)** is a comprehensive program, using interactive electronic technology.

- **Building Early Language and Literacy (BELL)** is an add-on literacy component with two daily 15-minute lessons.

- **Breakthrough to Literacy (BTL)** is a comprehensive program, using interactive computer software to provide individualized literacy activities for children.
• In classrooms with at least one Spanish-speaking child, there was at least one staff member who spoke Spanish.

• Number of children in attendance averaged 15, and average observed ratio was 1:10.

• More than half of the teachers spoke Spanish as their first language; 28% spoke only Spanish in the classroom (46-49% “preferred” Spanish).

• More than one-quarter (28%) had no education beyond high school.

• More than half reported having an AA or BA degree, almost always from institutions outside the US.
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Impacts on teachers & classroom environment (OMLIT observations)

<table>
<thead>
<tr>
<th>Construct</th>
<th>Spring 2004</th>
<th>Spring 2005</th>
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<tbody>
<tr>
<td></td>
<td>Effect size</td>
<td>Effect size</td>
</tr>
<tr>
<td>Support for Oral Language</td>
<td>.50***</td>
<td>.61***</td>
</tr>
<tr>
<td>Support for Phonological Awareness</td>
<td>ns</td>
<td>.49**</td>
</tr>
<tr>
<td>Support for Print Knowledge</td>
<td>.53**</td>
<td>.74***</td>
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<tr>
<td>Support for Print Motivation</td>
<td>.58***</td>
<td>.43***</td>
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<tr>
<td>Literacy Resources</td>
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<td>.28*</td>
</tr>
<tr>
<td>Literacy Activities</td>
<td>.39*</td>
<td>.80***</td>
</tr>
</tbody>
</table>
Impacts on teachers

- Nearly eliminated relationship of education to behavior shown at baseline: Suggestion that training can be a “substitute” for education

- All 3 curricula were English-language curricula; Spanish-speaking teachers showed largest impacts on classroom behavior
Impacts on classrooms

- By end of second year, the interventions had increased by 64% the amount of literacy-related activity in the treatment classrooms

- The increase in literacy-related activity did not come at the expense of any other single developmentally important activity
Impacts on classroom activities

Children’s Activities (OMLIT – Spring 2005)

<table>
<thead>
<tr>
<th>Treatment Classrooms</th>
<th>Control Classrooms</th>
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<tbody>
<tr>
<td>Developmental activities</td>
<td>Language/ literacy activities</td>
</tr>
<tr>
<td>32%</td>
<td>15%</td>
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<tr>
<td>Activities</td>
<td>Developmental activities</td>
</tr>
<tr>
<td>24%</td>
<td>Language/ literacy activities</td>
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<tr>
<td>Activities</td>
<td>39%</td>
</tr>
<tr>
<td>Circle time</td>
<td>Routinee, transition, gross motor play</td>
</tr>
<tr>
<td>16%</td>
<td>15%</td>
</tr>
<tr>
<td>Routines</td>
<td>Routinee, transition, gross motor play</td>
</tr>
<tr>
<td>28%</td>
<td>31%</td>
</tr>
<tr>
<td>Transition</td>
<td>Routines</td>
</tr>
<tr>
<td>15%</td>
<td></td>
</tr>
</tbody>
</table>
Impacts on child outcomes

- On all 4 measures of language/literacy, control group scored below national norms
- Children in 2 of the interventions had significant impacts on all four measures of emergent literacy
- Largest impact on Phonological Awareness--interventions halved the gap and children outperformed norming sample
• Impacts on children’s language and literacy skills analyzed in three-level hierarchical linear models: children (level 1) nested in classrooms (level 2) and classrooms nested in randomization blocks (level 3)
• Treatment impacts were estimated in models that controlled for child’s age, sex and home language, class-level mean LAP-D scores measured in Fall 2004, block variables (dominant language of teacher/size of center)
Conclusions

- Results suggest that when “counterfactual” represents low quality $\rightarrow$ well-designed, focused curricula accompanied by high-quality professional development* can have meaningful effects

* High quality PD = ongoing, job-embedded, focused on curriculum or standards; involves professional community and specific recommendations for teachers’ own classrooms
Significance of impacts on children

- The impacts brought children close to or above the national norms on three of the four child outcomes

- The impacts represent between four and nine months of developmental growth
For more details on the report

- The press release about the report is now available at the ACF page on the HHS website:
  http://www.acf.hhs.gov

- The press release contains a link to the full report