Developing effective early childhood teachers: Findings from Project Upgrade

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Solving problems, guiding decisions – worldwide

Project Upgrade in Miami-Dade

• One of four experiments conducted as part of the National Evaluation of Child Care Subsidy Strategies.

• Partnership between Early Learning Coalition (use of quality dollars for interventions) and Abt Associates (federal evaluation funds)

• Rigorous, two-year experimental test of three language/literacy curricula.

• Implemented in 164 child care centers serving subsidized and other low-income four-year-olds.
Questions Addressed by the Study

• Is it possible to train and support child care staff to deliver high-quality curricula with fidelity?

• What is the impact of high-quality language/literacy curricula on children’s language development and emergent literacy?
Study Findings: Impact on Teachers

• All three interventions produced significant and large impacts on teacher behaviors and interactions with children that supported language and literacy development.

• All three interventions produced significant impacts on the classroom literacy environment.

• The interventions produced a substantial increase in time spent on language and literacy activities.

• Training and ongoing support eliminated the small effect of teachers’ education on their literacy behavior found at baseline.
Study Findings: Impact on Children

• Two of the three interventions had significant impacts on four measures of children’s emergent literacy.

• The impacts of the two interventions brought children close to or above national norms on three of the four outcomes.

• The impacts represent between four and nine months of developmental growth and are larger than those found on similar measures in the Head Start Impact Study and other recent early childhood evaluations (e.g., Early Reading First).
Study Findings: Differential Impacts

• The impacts on teacher behavior, while significant for all teacher groups were generally stronger for Spanish-speaking teachers.

• The impacts of the intervention on children’s language and literacy outcomes were greater for children with Spanish-speaking teachers than for children with English-speaking teachers.
Classrooms, Teachers and Children in the Study: Fall 2003 [Pre-implementation]

- In Spring 2003, low-income four-year-olds scored in the lowest third nationally on a language assessment.

- Most of the children in the study were from low-income families (receiving child care subsidy and/or eligible for free or reduced price meals).

- More than half of the children in the study were predominantly Spanish-speaking, reflecting the child population of Miami.

- Classrooms were linguistically homogeneous; in almost half, all the children spoke Spanish as their primary language; in 36% all the children spoke English as their primary language.
Classrooms, Teachers and Children in the Study: Fall 2003

- More than half of the teachers spoke Spanish as their first language; 28% spoke only Spanish in the classroom.

- 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.
• Average observed staff/child ratio was 1:10. Classrooms usually, but not always, contained a teacher and an aide.

• Classroom environment offered little support for emergent literacy: few high-quality materials, little reading activity, mostly whole group activity.
What are Possible Reasons for Impacts?

- All three curricula are based on the most recent research on what predicts reading success in school.

- All three combine teacher-directed activities, child-initiated activities and material sent home with the child for parent use.

- All three were sensitive to the needs of ELL students, providing literacy materials in Spanish as well as English.

- Two of the three used technology to support and enhance teacher behavior and activities, and encourage children’s self-initiated literacy activities. Those two were also comprehensive curricula (rather than supplementary).
Key Content Features—for Early Language & Literacy Development

• Support for Oral Language
  – e.g., dialogic reading, conversations/extended discourse, open-ended questions, complex but contextualized (rich) language, pretend play & pretend talk between children

• Support for Print Knowledge
  – e.g., letters & words, conventions of print

• Support for Phonological Sensitivity
  – e.g., language games, rhymes, songs, poems, books with phonemic patterns (e.g., rhyme & alliteration)

• Support for Print Motivation
  – e.g., print used for authentic purposes, dialogic reading
### Key content areas by curriculum

<table>
<thead>
<tr>
<th>Curriculum</th>
<th>RSL</th>
<th>BELL</th>
<th>BTL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Language</td>
<td>Read-aloud w/trade books; disc.: comp &amp; vocab dev. activities</td>
<td>Read-aloud w/language-reduced books; disc.: comp &amp; motiv (2-4 x 15 min/wk)</td>
<td>Read-aloud w/language-reduced books; disc.: vocab</td>
</tr>
<tr>
<td>Print Knowledge</td>
<td>LeapDesk &amp; Leap Pad</td>
<td>Direct instruction; (1-3 x 15 min/wk)</td>
<td>Computer (ISI) &amp; sm grp activities (letter ID, story cards)</td>
</tr>
<tr>
<td>Phonol. Awareness</td>
<td>Leap Pad</td>
<td>Direct instruction; (1-3 x 15 min/wk)</td>
<td>ISI</td>
</tr>
<tr>
<td>Print Motivation</td>
<td>Read-aloud (w/trade books); disc.: motivation</td>
<td>Read-aloud + follow-up activities (2-4 x 15 min/wk)</td>
<td>Read-aloud (w/lang-reduced); follow-up activ.s</td>
</tr>
</tbody>
</table>
What are Possible Reasons for Impacts?

• Group training was interactive and sequenced (some concepts introduced at initial training, others at two subsequent training sessions).

• Ongoing mentoring was **intensive** (bi-monthly), **focused**, **flexible** (some classrooms were visited more often, others less often, as need was identified), and **individualized** to reflect teacher needs and classroom reality.

• Mentoring combined observation, modeling and detailed feedback to teachers.
What are Possible Reasons for Impacts?

• Appropriateness of intervention and measures (consistent focus on the problem identified and the outcome goals):
  
  – curricula focused on problem areas identified;
  
  – observation measures focused on behaviors, interactions, activities and environmental features that support outcome goals;
  
  – outcome measures focused on specific areas identified as: a) problems; and b) goal of interventions.
How was Implementation Measured?

• **Fidelity** was measured by coaches, at each visit.

• Different measures for each of the curricula.

• No common definitions for terms used. Coaches struggled to define (“beginning”, “satisfactory” “full”)

• Role of measuring implementation in this way:
  – Intended: To determine the extent to which curriculum was being implemented as intended by developer.
  – Realized: Provided consistent, systematic feedback to teachers.
How was Implementation Measured?

- **Quality of language/literacy environment** – measured by evaluation staff across all classrooms, using objective, focused measures.

- **Characteristics of interventions** -- evaluation staff “shadowed” coaches during mentoring visits to obtain qualitative descriptions of curricular implementation, mentoring process.

- **Identifying implementation challenges** – senior evaluation staff met monthly with trainers and coaches to discuss implementation problems and implications.
What Did We Learn from the Implementation Study?

• In each of the three treatment groups, three or four classrooms never achieved satisfactory levels of implementation.

• Reasons for poor implementation included:
  
  – Teacher was unprepared, had not mastered basic classroom management;
  
  – Center experienced repeated teacher turnover, new teachers were retrained but needed more time.
  
  – Director, or teacher, or both were resistant to instructional change.
  
  – Lack of trust between teachers and center administration meant that teachers were not supported.
What Did We Learn from the Implementation Study?

• Features of successful implementers included:
  – positive attitudes toward instructional change in both teacher and director;
  – effective classroom management and well-organized space and materials;
  – healthy working relationships among teachers, directors, and parents; and
  – teachers’ frequent individual interactions with children.
Review of Findings presented

• High-quality professional development was provided and was effective.

• Even ECE teachers with a relatively low level of education were able to change their teaching behavior dramatically to reflect current ideas of best practices, in accordance with the training and coaching they received; the original effect of prior formal education disappeared.

• Impacts on teachers in two of the three treatment groups translated into impacts on children.
The findings raise several questions about the outcomes:

• What was different about the one intervention that prevented those classrooms from experiencing comparable student benefits?
  
  – It was low-intensity (only two 15-minute add-on sessions each day compared with other two, which were comprehensive, had activities threaded throughout the day);
  
  – The two effective interventions had attractive technology that enhanced and supported teacher activities, increasing exposure.
Unresolved Issues

• Why were impacts greater for Spanish-dominant teachers than for their English-dominant counterparts?

• Not likely to be differences in educational achievement (baseline measures showed little difference in behavior, training erased the difference)

• Possibly more highly motivated because of challenges facing Spanish-speaking children as they enter kindergarten.

• Interventions also helped teachers with their own English-language issues.
For more information about Project Upgrade findings…

• The press release about the report is now available at the ACF page on the HHS website at:

http://www.acf.hhs.gov

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