Developing effective early childhood teachers: Findings from *Project Upgrade*

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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.

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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.

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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).

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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.

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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.

Classrooms, Teachers and Children in the Study: Fall 2003

- 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.

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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).

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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

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Key content areas by curriculum

Curriculum	RSL	BELL	BTL
Oral Language	Read-aloud w/trade books; disc.: comp & vocab dev. activities	Read-aloud w/language-reduced books; disc.: comp & motiv (2-4 x 15 min/wk)	Read-aloud w/language-reduced books; disc.: vocab
Print Knowledge	LeapDesk & Leap Pad	Direct instruction; (1-3 x 15 min/wk)	Computer (ISI) & sm grp activities (letter ID, story cards)
Phonol. Awareness	Leap Pad	Direct instruction; (1-3 x 15 min/wk)	ISI
Print Motivation	Read-aloud (w/trade books); disc.: motivation	Read-aloud + follow-up activities (2-4 x 15 min/wk)	Read-aloud (w/lang-reduced); follow-up activ.s

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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.

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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.

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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.

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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.

Unresolved Issues

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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