Research Partners

• One of four random-assignment studies that are part of the Child Care Subsidy Evaluation, funded by OPRE
  – Project Upgrade, Miami-Dade County, FL
  – Illinois Evaluation of the Effects of Child Care Subsidies
  – Washington Co-Payment Study

• Abt Associates is the prime contractor with partners MDRC and National Center for Children in Poverty
What is *LearningGames*

- A curriculum approach focused on fostering enriched, one-on-one interactions between caregivers and children

- Its precursor was the curriculum used in the Abecedarian study, which showed substantial impacts on children’s short- and long-term outcomes

- Has been evaluated in center-based setting and in home visiting programs

- Potentially well-suited for family child care homes because it is individualized, based on child’s age and developmental stage

- Game-like, builds on informal learning experiences
Study Design

• Overview

– 350 family child care providers from 16 Massachusetts family child care networks recruited to participate in the study

– ½ received the current technical assistance from networks (periodic home visits; opportunities for education and training, etc.)

– ½ received regular TA plus training and materials to implement LearningGames

– Family child care providers asked to participate in study for 2 years
Overarching Research Questions

• What is the impact of LearningGames on provider practices with young children (0-5) that support language and cognitive development?

• What is the impact of the intervention on children’s language and cognitive development?
Provider Measures

• Snapshot of Home Activities (Adapted from OMLIT-SNAP)
  – Time sampled description of home activities and groupings
  – Environment: Number of caregiver and children
  – Activities: Activities and groupings of children; whether caregiver is present in grouping and how involved she is
  – Examples of activities: gross motor, block play, routine caregiving

• Read-Aloud Profile (OMLIT-RAP)
  – A description of adult behavior when reading aloud with children (comprehension, questions, attention to print knowledge)
  – Whether read aloud occurred with one or two children
Provider measures, continued

- **TALK** (created for the study)
  - Assesses the extent to which providers engaged in extended conversations with individual child
  - Time sampled: Each child is watched for a 10-minute interval
  - Codes interactions into 5 categories:
    - Management/helping
    - Provider-only talking
    - Simultaneous “talk” (singing, chanting)
    - Short discussion (fewer than 4 turns back and forth)
    - Extended discussion (more than 4 turns back and forth)
Provider measures, continued

- The Caregiver Interaction Scale (the “Arnett”)
  - Measures emotional tone, discipline style, responsiveness of caregiver

- Nine additional items drawn from other measures
  - Focuses on behaviors aligned with LearningGames (extended interactions, nudging children into more developmental activities, enrichment of daily routines, etc.)
Train-the-Trainer Approach

- FCC Network’s home visitors would be trained in *LearningGames* and in doing the *LearningGames* home visit protocol

- In turn home visitors would receive support from ½ time project coordinators

- Both home visitors and project coordinators would receive training and TA from the *LearningGames* developer

- The *LearningGames* developer provided a limited amount of direct training to providers
Components of LearningGames

- 200 games or activities for providers to use with children from 0-5 years, organized by age of child

- Suggestions for “enriched caregiving” across all parts of the day, including during routine care and ordinary activities

- Support for interactive reading with child through LearningGames conversation books

- Specific learning strategies for children including 3S (See, Show, Say) and 3N (Notice, Nudge, Narrate)

- Documentation and organizational plans, including weekly planning guides and record keeping
Roles and Responsibilities

LearningGames Developer

- Training and TA for home visitors
- Consultations with family child care networks
- Limited direct training to LearningGames providers (Year 2)
- Oversight of Project Coordinators (Year 2)

Project Coordinators

- Monthly contact with family child care network staff
- TA; including bi-monthly observations of home visitors on a LearningGames visits

Family Child Care Networks

Network Support

- Release time for home visitors to attend training
- Reduce other job duties of home visitors if necessary

Home Visiting Staff

- Master the LearningGames curriculum
- Learn and use the LearningGames home visit protocol
- Make LearningGames visits to homes every two weeks
- Document the home visits

Family Child Care Homes

- Weekly LearningGames plans for every child
- Send parent LearningGames materials and conversations books to parents
- Interactive book reading every day with every child
- Play LearningGame every day with every child
- Consistently practice enriched caregiving and use the 3S and 3N strategies every day with every child
Massachusetts *LearningGames* Implementation Study Questions

1) Professional Development Model:
   - What was the planned model of support/training family child care providers using *LearningGames*?
   - To what degree was the plan implemented (“fidelity of implementation”)?

2) Program Model:
   - What is the *LearningGames* model?
   - How fully did family child care providers implement *LearningGames* (“fidelity of implementation”)?
The Massachusetts LearningGames Approach

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*Tan* - Professional development model
*Blue* - Program model
Measuring Fidelity – 3 Common Practices

1) Assess the extent to which caregivers/teachers/etc. adhere to procedures or practices deemed critical for implementing a particular approach

2) Use a common observational system that both aligns provider practices with child outcomes and with specific aspects of the intervention

3) Use a hybrid of the first and second
1) Adhere to procedures and practices of the intervention

- Feasible approach if:
  - The intervention has very specific elements that are observable and quantifiable. (E.g., use puppets, use specific materials for a specified amount of time)
  - These specific elements can be articulated by the developer
  - The specific elements are aligned with the program’s success in improving child outcomes

- For the Massachusetts study:
  - **Feasible** for the Professional Development Model (did the visits happen; were the specific protocols followed)
  - **Not Feasible** for the Program Model
Measuring LearningGames Fidelity

Why feasible for professional development model but NOT for program model?

• Professional Development Model
  – Very specific and defined
  – Number of visits by program coordinators and by home visitors clear
  – Protocol is clear
  – Protocol can be assessed by outside observers

• Program Model
  – Many/most of the LearningGames could occur in all family child care homes (nesting cups with a toddler, using a mirror to show a baby her face) so hard to tell if a LearningGame is happening
  – LearningGames approach is to enrich all activities in the home (singing during meal times; notice/nudge/nurture)
  – A LearningGames home is almost synonymous with a high-quality fcc home.
2) Use a common observational system that picks up observable behaviors intervention is intended to change

- Feasible approach if:
  - The intervention is centered on evidence-based practices
  - Elements of the intervention are tied closely both to child outcomes and to specific aspects of the intervention

- For the Massachusetts Study
  - **Not Feasible** for the Professional Development model
  - **Feasible** for the Program model
Why feasible for program model but NOT for professional development model?

• Professional Development Model
  — No common evidence-based TA provision outcomes have been developed (field hasn’t gotten this far yet)
  — Unlikely that there would be common practices between general TA providers and *LearningGames* TA providers

• Program Development Model (Same reasons why Option 1 is NOT feasible)
  — Many/most of the *LearningGames* could occur in all family child care homes (nesting cups with a toddler, using a mirror to show a baby her face) so hard to tell if a *LearningGame* is happening
  — *LearningGames* approach is to enrich all activities in the home (singing during meal times; notice/nudge/nurture)
  — A *LearningGames* home is almost synonymous with a high-quality home
What We Did

**Professional Development Model:**
- Relied on records to indicate whether or not the activities occurred as planned
- Interviewed stakeholders to learn about successes and barriers to implementation
- Relied on project coordinators to tell us if home visitors adhered to the specific protocols

**Program Model:**
- Looked at check lists created by *LearningGames* developer to track implementation
- Identified very specific items from observation system described above that were closely aligned to what *LearningGames* practices
- Used items from the provider observations to create an implementation scale
Elements of the fidelity of implementation scale. Potential of 33 points

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extended verbal/non-verbal interactions with 1 or pair of children</td>
<td>1: never or infrequently; 2: occasionally; 3: often/consistently</td>
</tr>
<tr>
<td>(Source: Additional Questions)</td>
<td></td>
</tr>
<tr>
<td>Nudges children to try something new</td>
<td>1: never or infrequently; 2: occasionally; 3: often/consistently</td>
</tr>
<tr>
<td>(Source: Additional Questions)</td>
<td></td>
</tr>
<tr>
<td>Enriches routine through language interactions/learning</td>
<td>1: never or infrequently; 2: occasionally; 3: often/consistently</td>
</tr>
<tr>
<td>(Source: Additional Questions)</td>
<td></td>
</tr>
<tr>
<td>Language-rich interactions</td>
<td>1: never or infrequently; 2: occasionally; 3: often/consistently</td>
</tr>
<tr>
<td>(Source: Additional Questions)</td>
<td></td>
</tr>
<tr>
<td>Encourages children to engage with print</td>
<td>1: never or infrequently; 2: occasionally; 3: often/consistently</td>
</tr>
<tr>
<td>(Source: Additional Questions)</td>
<td></td>
</tr>
<tr>
<td>If child &lt; 12 months: Encourages infants to explore/be active</td>
<td>1: never or infrequently; 2: occasionally; 3: often/consistently</td>
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<tr>
<td>(Source: Additional Questions)</td>
<td></td>
</tr>
<tr>
<td>If child &gt; 36 months in care: Helps children talk about they are</td>
<td>1: never or infrequently; 2: occasionally; 3: often/consistently</td>
</tr>
<tr>
<td>going/thinking through open-ended questions</td>
<td>(Source: Additional Questions)</td>
</tr>
<tr>
<td>If child &gt; 36 months in care: Extended rich conversations with 1</td>
<td>1: never or infrequently; 2: occasionally; 3: often/consistently</td>
</tr>
<tr>
<td>or pair of children</td>
<td>(Source: Additional Questions)</td>
</tr>
<tr>
<td>Proportion time in meaningful talk with individual children</td>
<td>1: &gt; 5%; 2: 5-25%; 3: 25% or more</td>
</tr>
<tr>
<td>(extended conversation; singing/back-and-forth verbal games with infants</td>
<td>(Source: TALK)</td>
</tr>
<tr>
<td>or toddlers)</td>
<td></td>
</tr>
<tr>
<td>Proportion of time in routine activities that provider is</td>
<td>1: 0%; 2: 1-25%; 3: 25% or more</td>
</tr>
<tr>
<td>playing, demonstrating/discussing with children</td>
<td>(Source: SNAP)</td>
</tr>
<tr>
<td>Proportion of reading aloud that is with individual or pairs of children</td>
<td>1: 0%; 2: 1-75%; 3: 76% or more</td>
</tr>
</tbody>
</table>
What the Ratings Were

• Anecdotal evidence and review of records showed that the professional development model was partially implemented. Many significant barriers to implementation.

• Provider observations indicate that there were differences in LearningGames and comparison homes

• Fidelity “scores” confirm this.
  – LearningGames Homes: 17.75 points
  – Comparison Homes: 14.50 points
Abt Associates Inc.