Massachusetts Family Child Care Study

Measuring Fidelity of Implementation

October 2009

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

Abt

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

Abt

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

Abt

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

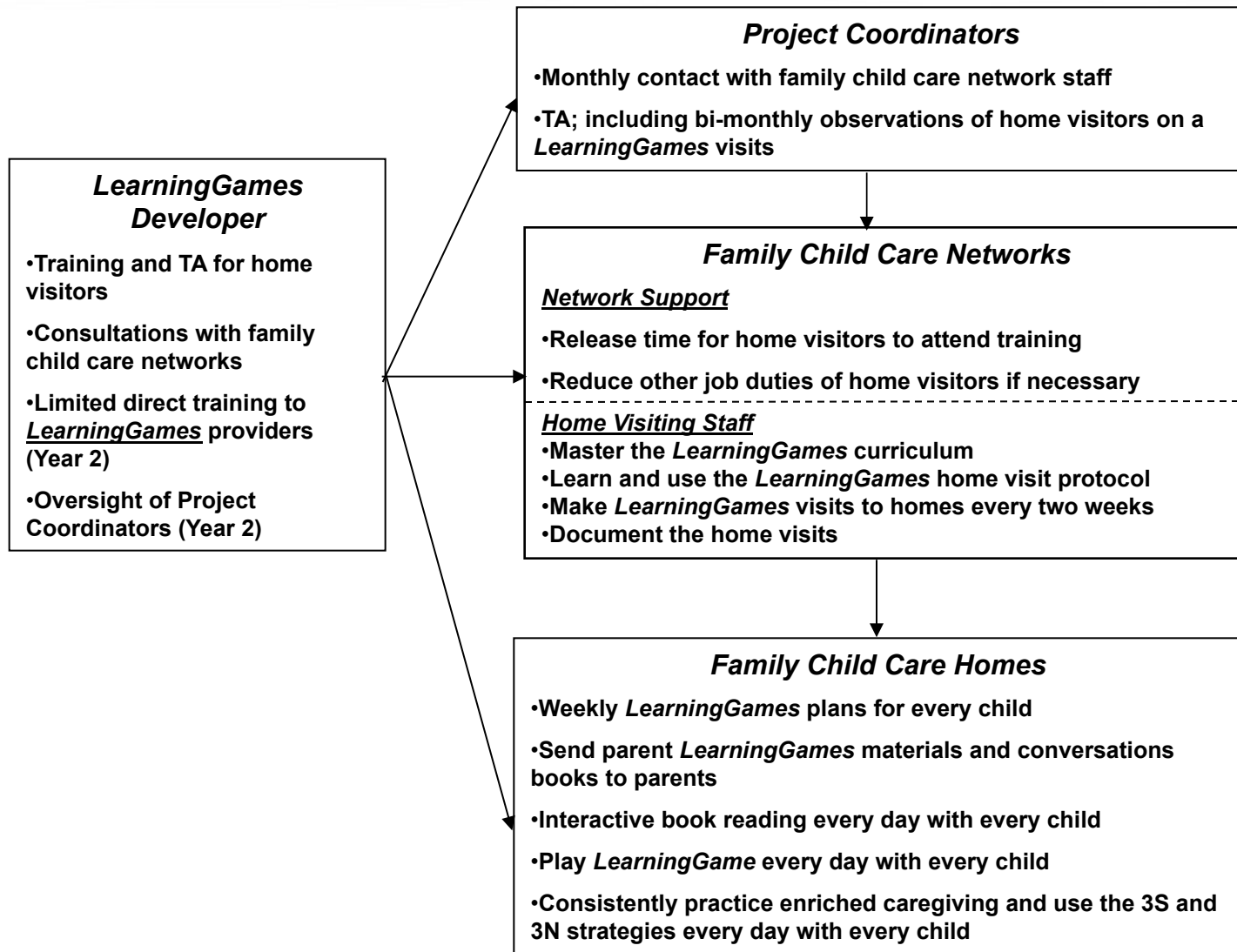- FCC Network's home visitors would be trained in *LearningGames* and in doing the *LearningGames* home visit protocol

- 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

Abt

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

Abt

Roles and Responsibilities

Project Coordinators

•Monthly contact with family child care network staff

•TA; including bi-monthly observations of home visitors on a *LearningGames* visits

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)

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

Abt

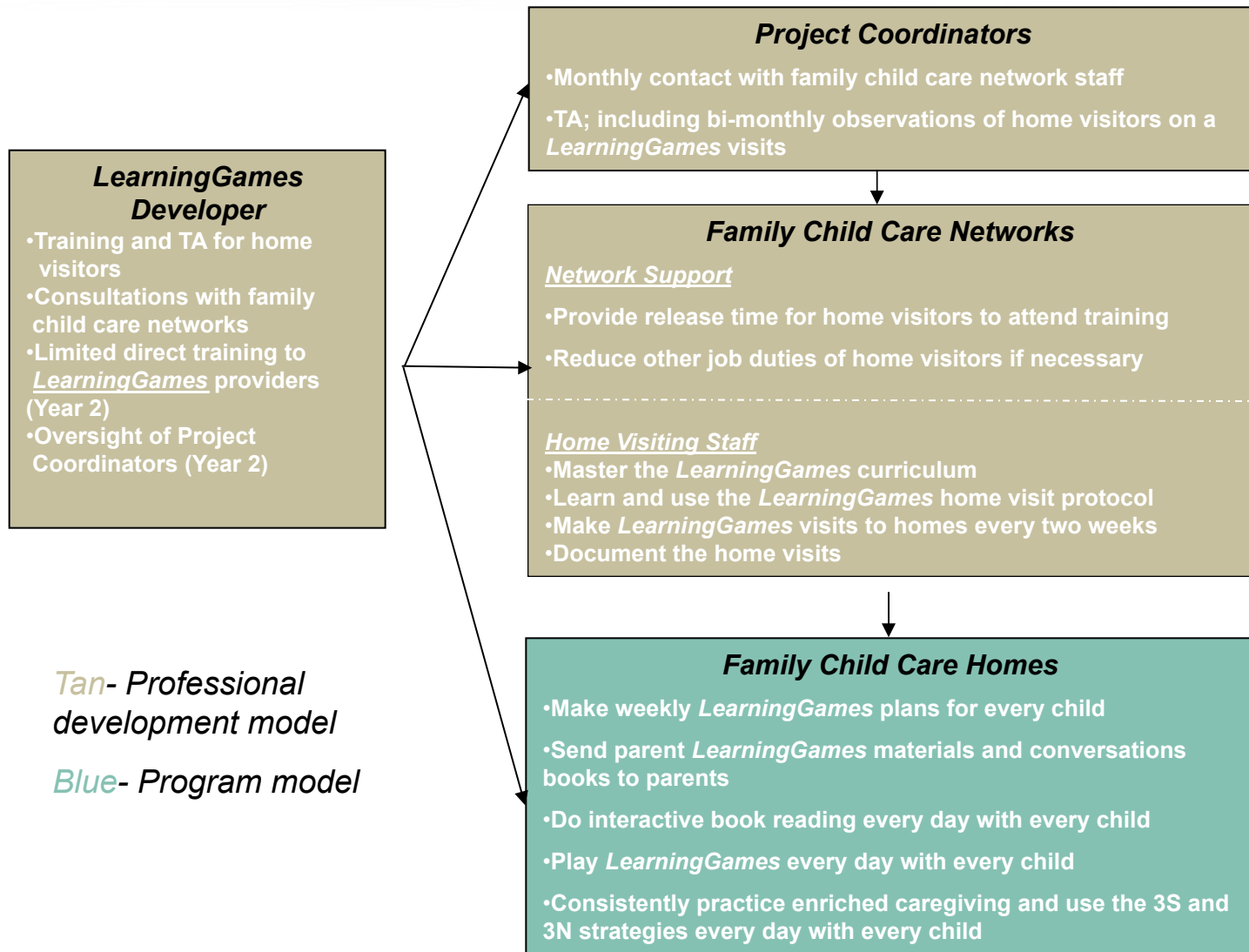# Massachusetts *LearningGames* Implementation Study Questions

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")?

Abt

The Massachusetts *LearningGames* Approach

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
- Provide 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
- Make weekly *LearningGames* plans for every child
- Send parent *LearningGames* materials and conversations books to parents
- Do interactive book reading every day with every child
- Play *LearningGames* every day with every child
- Consistently practice enriched caregiving and use the 3S and 3N strategies every day with every child

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

Abt

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.

Abt

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

Abt

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

Abt

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

Abt

Elements of the fidelity of implementation scale. Potential of 33 points

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

Abt

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