

## EVALUATION OF THE **TOTAL LEARNING** INITIATIVE IN BRIDGEPORT, CONNECTICUT

Action for Bridgeport Community Development (ABCD), Bridgeport's community action agency, in collaboration with the Bridgeport Board of Education, Head Start, Child FIRST, Arts Education IDEAS, Music Together, and the Michael Cohen Group LLC, has developed the **Total Learning Initiative** (TL), a comprehensive model of educational and social support for children zero to nine and their families. Based on research findings in social policy, education and childhood development arenas, TL is designed to address a critical educational crisis in the US — the persistent achievement gap that challenges students from impoverished and historically disadvantaged backgrounds.

**Total Learning** is a "whole child" approach designed to meet the needs of children and families living at or below the poverty level. At its core, TL's orientation is that classroom experiences exist in the context of the child's entire life. In order for children to learn and mature, and to close the achievement gap, the full spectrum of needs of impoverished families must be addressed.

**Total Learning Kindergarten Model.** The Total Learning kindergarten model consists of several educational and social support services:

In the classroom: An enhanced learning environment (small class size, reduced student-to-teacher/paraprofessional classroom ratio, an extended day); instruction of core curriculum via a multi-sensory, multi-modal, arts-infused approach to curriculum delivery; embedded, in-classroom professional development for teachers and paraprofessionals.

Outside the classroom: Extensive family services and support; dedicated family workers; Child FIRST (intensive home-based, mental health interventions for children and their families).

**Total Learning Preschool Model.** The Total Learning preschool model consists of educational and social support services:

In the classroom. In addition to presentation of core preschool curriculum, children participate in 45-minute weekly Music Together sessions, including a flow of songs, nursery rhymes, vocal and language play, instrumental jam sessions, and movement sessions; embedded, in-classroom professional development designed to train preschool teachers in using music and movement to deliver core curriculum.

Outside the classroom: Extensive family services and support; dedicated family workers; Child FIRST (intensive home-based, mental health interventions for children and their families).

**Total Learning Toddler/Parent Model.** Total Learning's toddler/parent program is a comprehensive music education program for early learners (ages 0 to 3) and their parents or guardians. Weekly parent-child classes are 30- to 45- minutes long and include a flow of songs, nursery rhymes, instrumental jam sessions, finger play, and movement activities. The combination and types of activities are research-based and support children's developing competence in tonality and rhythm. Shared parent-child activities also include vocal play, animal sounds, rhythm play, and language play.

Classes are taught by registered Music Together teachers trained in music development and skilled in leading participatory music activities. Children and their parents take the music home with the program's family CDs and songbooks. Children and their parents enrolled in Total Learning's Music Together program also receive health and mental health services and support from Child FIRST.

## EVALUATION OF THE IMPACT OF **TOTAL LEARNING** ON CHILDREN IN BRIDGEPORT, CT

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The overall objectives of the **Total Learning** evaluation are:

- To evaluate the impact of the **Total Learning Initiative** on toddlers (ages two and three), preschoolers (age four) and public school kindergartners (age five) in Bridgeport, Connecticut.
- Specifically, to evaluate the impact of **Total Learning** on student outcome performance, assessed by standardized tests, and determined by a **scientific, evidenced-based control study**.

This evaluation was conducted from October 2007 to May 2008 by the Michael Cohen Group LLC (MCG) — a research and evaluation team specializing in education. The evaluation was designed and analyzed by MCG as principal investigator.

### Impact on Public School Kindergarten Students

#### Method

32 classrooms of kindergartners (551 students, English-language learners excluded) participated in the evaluation.

- Sixteen classrooms (252 students) were assigned to the Total Learning Condition and received a multi-sensory, arts-infused approach to curriculum delivery, an enhanced learning environment (small class size, reduced student-to-adult ratio, an extended day), embedded professional development for teachers and paraprofessionals, and extensive family services and support.
- Sixteen classrooms (299 students) were assigned to the Standard Classroom Condition and received regular classroom instruction without the introduction of Total Learning components.
- Standardized measures (Concepts of Print, Developmental Reading Assessment) designed to assess emergent literacy skills were used in a **pre-test/post-test research design**.

#### Significant Main Effects

Findings relative to the entire sample of children:

- **Decoding of Written Text.** Kindergartners assigned to Total Learning showed significantly greater increases in specific emergent literacy skills (decoding of written text, word recognition) than did children who did not participate in the program ( $d = .8, p < .05$ ).
- **Awareness and Understanding of Print.** Kindergartners assigned to Total Learning showed significantly greater gains in their awareness of print in the everyday environment and their understanding of how the concepts of printed language work than did students who did not participate in the program ( $d = .4, p < .001$ ).

### Significant Moderator Effects

Findings relative to specific subgroups within the overall sample:

- **Students with lowest initial Developmental Reading Assessment scores (DRA).** Students in Total Learning classrooms who scored 1 or less on the baseline DRA made significantly greater gains in test scores from January '08 to May '08 than did the lowest scoring students who received standardized classroom instruction ( $d = .8, p < .001$ ).
- **Students of "high risk" families.** Total Learning appears to mitigate the impact of high family risk levels on learning: Total Learning kindergartners assessed as "at high family risk" made similar score gains to peers with families assessed not assessed at risk on Concepts of Print ( $p < .05$ ) and on the Diagnostic Reading Assessment ( $p < .05$ ).

### Impact on Preschool Students

#### Method

473 preschoolers in 36 Early Learning classrooms participated in the student. Ten (10) classrooms were assigned to receive Total Learning's Music Together in addition to regular classroom instruction. Twenty-six classrooms were assigned to receive regular classroom instruction without the introduction of Total Learning's Music Together Component. A standardized measure (*Creative Curriculum 3<sup>rd</sup> Edition*) designed to evaluate a child's progress in four critical developmental domains (i.e., socio-emotional, cognitive, language and physical development) was used to measure outcomes in a **pre-test/post-test research design**.

#### Significant Main Effects

- **Cognitive development gains.** Four-year-olds in preschool classrooms assigned to receive Total Learning's Music Together component made significantly greater gains in cognitive skills (problem solving) from October 2007 to May 2008 than did preschoolers who did not participate in the program ( $d = .2, p = .01$ ).
- **Language development gains.** Preschool children assigned to receive Music Together made significantly greater gains in language acquisition and verbal fluency than children who did not participate in the program ( $d = .3, p < .001$ ).
- **Physical development gains.** Four-year-olds in classrooms assigned to receive Music Together made significantly greater gains in physical development (coordination) than did children in classrooms that did not participate in the program ( $d = .2, p < .05$ ).

### Impact on Early Learners Ages 0-3

#### Benefits to Early Learners

Total Learning's Music Together program for parents and their toddlers appears to contribute significantly to children's developmental progress.

Almost all of Bridgeport early learners (ages 0 to 3) who participated in Total Learning's Music Together parent-child classes ranked above national norms in key developmental domains after exposure to the program, as measured by a standardized assessment instrument (Vineland 2 Adaptive Behavior Scales).

- **Two year olds.** A majority of two year olds' standardized test scores ranked at or above:
  - 60 percentile on expressive and receptive language skills
  - 68 percentile on interpersonal and coping skills
- **Three year olds.** Almost all three year olds' standardized test scores ranked at or above:
  - 90 percentile on expressive and receptive language skills
  - 80 percentile on interpersonal and coping skills