Executive Summary

Building Blocks Regional Training Center: Year One Pilot
September 2022

Building Blocks

Overview

Building Blocks is a nonprofit organization serving 28 counties in Southern Indiana. Core to their mission is improving the accessibility, affordability, and quality of childcare. Beginning in spring 2021, Building Blocks initiated a three-year pilot of an early learning Regional Training Center (RTC) Model of service delivery. During the pilot year (2021-2022), a total of 26 early learning sites participated, representing 88 early learning classrooms for ages 3-5. Early childhood sites are located in southern Indiana and include both business and faith-based centers. The **primary purpose** of the model is to improve child outcomes by increasing the capacity of early learning sites to provide high-quality early childhood education to children and families.

26 centers

88 classrooms

849 children (ages 3-5)

Regional Training Center (RTC) Goals

- **Goal 1:** Sites will be better able to address the social, emotional, and cognitive learning needs of children and help families develop knowledge and skills to support their child.
- **Goal 2:** Children will be socially, emotionally, and academically ready for school.
- **Goal 3:** Primary caregivers will understand the importance of early learning and be better equipped with the knowledge and skills to support their child's optimal development and growth.
- **Goal 4:** Children will demonstrate academic success in school.

Year One Pilot

Process and outcome evaluation strategies are being employed to examine progress toward implementation of the model (process) and the extent to which intended results are being achieved specific to the primary goal areas underlying the model (outcomes). The technical report details progress toward these areas. Key findings from the year one pilot are summarized around the following areas:

Regional Training Center Implementation

Provider Effectiveness

Preliminary Child Outcomes

Approach

Evaluation Questions:

(1) To what extent are core RTC model components being implemented with fidelity (adherence, dosage, quality, participant engagement)?

(2) To what extent are early learning sites making progress towards primary RTC goal areas?

Methods:

Process and outcome measures guided evaluation (Regional Training Center Logic Model and Evaluation Plan, July 2021).

Implementation Measures (e.g., fidelity checklists, participation records/feedback)

Provider Effectiveness Measures
- CLASS
- ECERS-3
- ELLCO

Child Outcome Measures
- Peabody Picture Vocabulary Test (PPVT-5)
- Woodcock-Johnson IV (LW/AP)
- Devereux Early Childhood Assessment (DECA)
- Executive functioning (Dimension Change Card Sort/ Peg Tapping Task)
- BRIGANCE Readiness

Analyses:

Descriptive analyses examined progress toward performance measures and participant needs after year one pilot implementation. Exploratory analyses further examined preliminary progress toward goal areas.
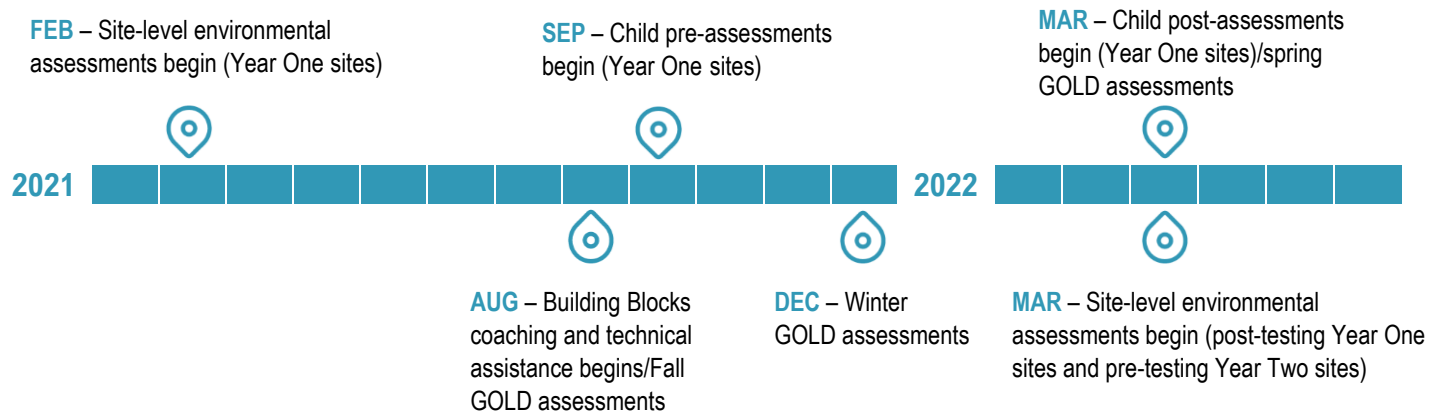
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Year One Implementation Timeline

Building Blocks began implementation of key components in spring 2021, when staff conducted pre-assessment testing of the classroom environment using observational measures (e.g., CLASS, ECERS-3, ELLCO) and training in Teaching Strategies Creative Curriculum. In August 2021, coaching and technical assistance with site directors and educators began, along with child formative assessments (Teaching Strategies GOLD). Evaluation consent forms were collected as families enrolled their children in early learning sites. In September 2021, school psychologists began collecting pre-assessment data for participating children. Finally, in March 2022, staff began post-assessments of children and classrooms. While outcome data collected as part of RTC implementation are being used to support evaluation activities, measures also inform formative assessment associated with Teaching Strategies GOLD and guide supports provided to educators and children.

FEB – Site-level environmental assessments begin (Year One sites)

SEP – Child pre-assessments begin (Year One sites)

MAR – Child post-assessments begin (Year One sites)/spring GOLD assessments

2021

2022

AUG – Building Blocks coaching and technical assistance begins/Fall GOLD assessments

DEC – Winter GOLD assessments

MAR – Site-level environmental assessments begin (post-testing Year One sites and pre-testing Year Two sites)
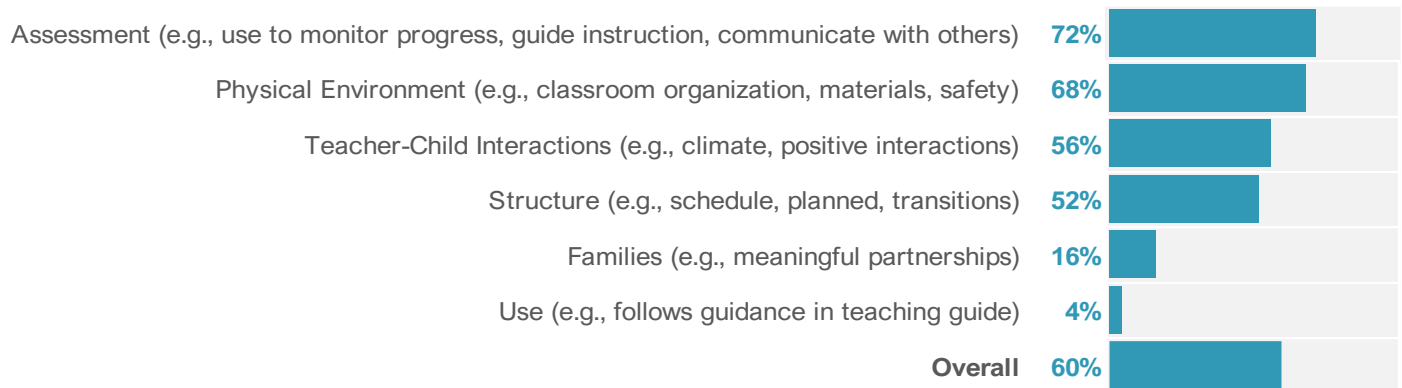
RTC Core Components

The Regional Training Center (RTC) Model outlines a set of **core model components** that were expected to be implemented across participating early learning sites. Selected progress toward each of the following components is described below.

- ◖ **Self-assessment:** Site quality and action, business growth, and professional development planning
- ◖ **Technical Assistance**
- ◖ **Training:** Curriculum, assessment, screening, and business operations
- ◖ **Environmental Assessments**
- ◖ **Family Engagement**

Self-assessment: Site quality and action, business growth, and professional development planning

- **96%** of sites completed the **Comp-PR** self-assessment of quality related to these domains: program structure; environment; curriculum and assessment; health, safety, and nutrition; and families and communities. The assessment identifies a site's current level of functioning which is compared to annual reviews as a measure of progress. The assessment also serves to identify strengths and areas for improvement to guide action planning.

- **100%** of sites created a **site-level business growth and action plan**. In addition, all sites participated in monthly reviews, with 100% of plans reviewed with Building Blocks coaches in four out of five months (i.e., February, April, May, and June).

- **96% (25/26)** of sites completed the Fidelity Tool for Administrators as a self-assessment. **All sites (100%)** reported **higher levels of fidelity** from baseline compared to post-assessment. At post-assessment, 60% of sites reported high levels of fidelity compared to 0% at baseline. The extent to which assessment areas increased in high implementation fidelity from baseline to post-assessment **varied from 4% to 72%** (Fig. 1).

Figure 1. Across sites, the areas where high fidelity ratings on the Teaching Strategies Creative Curriculum Fidelity Tool for Administrators increased the most included assessment, physical environment, teacher-child interactions, and structure.

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Assessment (e.g., use to monitor progress, guide instruction, communicate with others)	**72%**
Physical Environment (e.g., classroom organization, materials, safety)	**68%**
Teacher-Child Interactions (e.g., climate, positive interactions)	**56%**
Structure (e.g., schedule, planned, transitions)	**52%**
Families (e.g., meaningful partnerships)	**16%**
Use (e.g., follows guidance in teaching guide)	**4%**
Overall	**60%**

Technical Assistance

- All sites and educators were provided with technical assistance from Building Blocks Early Learning Coaches. A total of **4** coaches provided support across sites.

- Of educators responding to a feedback survey, **72%** agreed the professional development planning process was useful to their work, and **60%** agreed that the early learning coach was responsive to their needs and assistance was of high quality (Note: 36% to 40% of these educators did not agree or disagree, indicating some uncertainty).

- Of site directors responding to a feedback survey, **71%** found the business support training to be responsive to their needs and of high quality, and **67%** reported being satisfied with the coaching their site received.

Training: Curriculum, assessment, screening, and business operations

Educators received training related to three curricula (Creative Curriculum, Conscious Discipline, Second Step), three assessments/screenings (DECA, BRIGANCE, GOLD), and one family engagement platform (ReadyRosie).

◖ Of the **78** individuals serving as a lead educator at some time during the pilot year, the percentage of educators and number of sites receiving specific training varied.

◖ Educators reported **increased understanding and confidence** (Fig. 2) using curricula and assessments following their training.

Figure 2. Educators reported increased confidence in the use curricula and assessments from baseline to spring 2022.
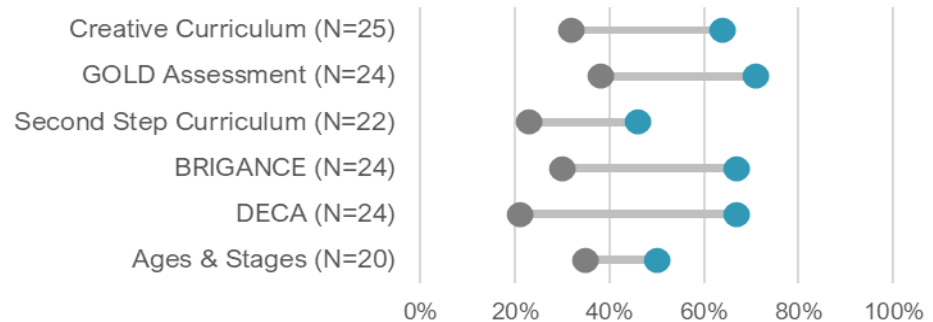
Environmental Assessments

CLASS

60 educator assessments across 24 sites in spring 2021

44 educator assessments across 20 sites in spring 2022

22 matched educator assessments across 12 sites

ECERS-3

40 educator assessments across 21 sites in spring 2021

53 educator assessments across 23 sites in spring 2022

32 matched educator assessments across 20 sites

ELLCO

47 educator assessments across 19 sites in spring 2021

61 educator assessments across 25 sites in spring 2022

30 matched educator assessments across 17 sites

Family Engagement

ReadyRosie is a family engagement and early learning resource that leverages video modeling, family workshops, professional development opportunities, and mobile technology developed partnerships between families and educators. Implementation of ReadyRosie was examined using analytics collected through the Teaching Strategies online platform (e.g., registered users (i.e., parents/caregivers), videos watched by users, playlists the educator creates, messages sent to users, and videos shared by educators).

◖ A total of 19 sites had at least one educator who used ReadyRosie at least one time during the pilot year. As evident by the ranges in usage reported below, educators varied widely in their usage.

Educators reported:

2 – 20
registered users (i.e., parents/caregivers) from their classroom

3 – 388
videos viewed by their classroom's users

1 – 54
playlists created

1 – 114
messages sent to their classroom's users

2 – 105
videos shared with their classroom's users

Provider Effectiveness

Classroom Assessment Scoring System (CLASS): Quality of teacher-child interactions

- **95%** of early learning classroom educators **increased the quality** of teacher-child interactions (or maintained a score of 5.5 or higher) specific to **emotional support** and **77%** did so in **instructional support** (Fig. 3).

- Significant mean differences were found for the **emotional support** and **instructional support** domains, as well as relative CLASS dimensions.

- Analyses reflect data from 22 early learning classroom educators with matched spring 2021 and 2022 CLASS observations. Similar increases were found at the site level with a matched sample of 17 early learning sites.

Figure 3. Educators (N=22) increased CLASS observation scores (or maintained a score of 5.5 or higher) for emotional support and instructional support in spring 2022.

- Increased/Maintained >= 5.5 ■ Stayed the Same ■ Decreased
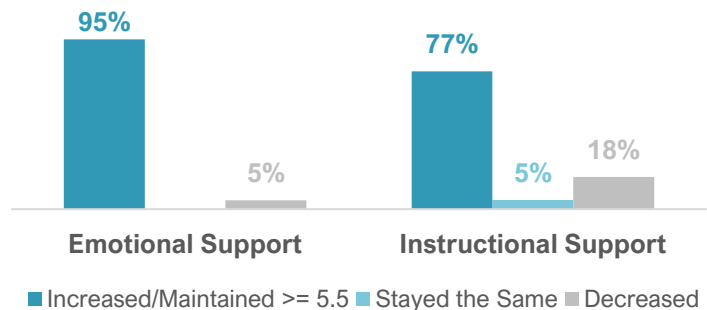
Early Childhood Environmental Rating Scale (ECERS-3): Quality related to the use of developmentally appropriate practices specific to the classroom environment

- **82%** of early learning classroom educators **increased (or maintained an average score of 5 or higher) overall quality** of the use of developmentally appropriate practices specific to the classroom environment.

- Overall, significant mean increases in the **quality of the classroom environment** (ECERS-3 Composite) were observed among the 32 early learning classroom educators with matched ECERS-3 observations (Fig. 4). Similar increases were found at the site level with a matched sample of 20 early learning sites.

Figure 4. Educators (N=32) demonstrated significant increases in total ECERS-3 scores and in the domains of space and furnishings, personal care routines, language and literacy, learning activities, and program structure from **baseline** to **spring 2022**.
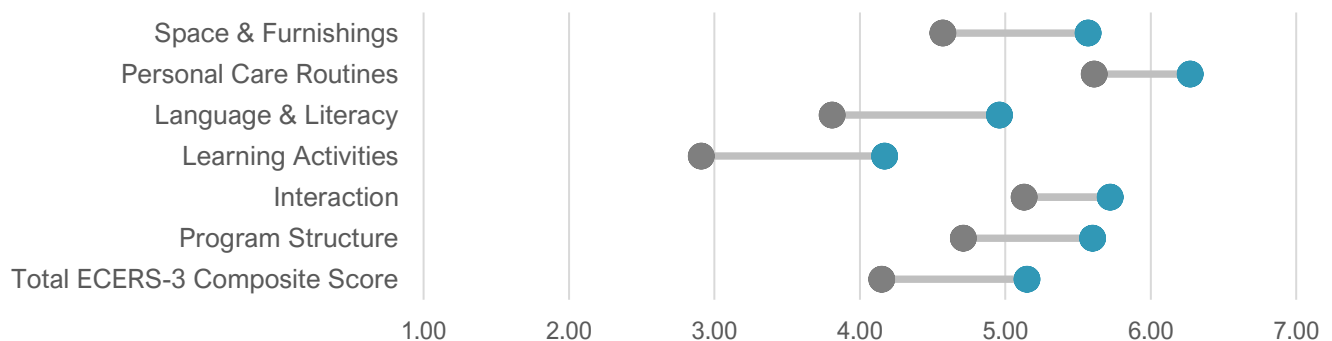
Early Language and Literacy Classroom Observation (ELLCO): Quality of preliteracy classroom environment and teaching practices

- **93.3%** of educators increased quality on the ELLCO **language and literacy subscale** (Language Environment; Books and Book Reading; Print and Early Writing) (or maintained 4 or higher) from baseline to spring 2022.

- Significant mean increases in quality were observed on the **language and literacy subscale** and associated subscale section of **language environment**, **books and book reading**, and **printing and early writing** for the 30 early learning classroom educators with matched ELLCO observations (Fig. 5). Similar increases were found at the site level with a matched sample of 17 early learning sites.

Figure 5. Educators (N=30) demonstrated significant increases in language and literacy from baseline to spring 2022.
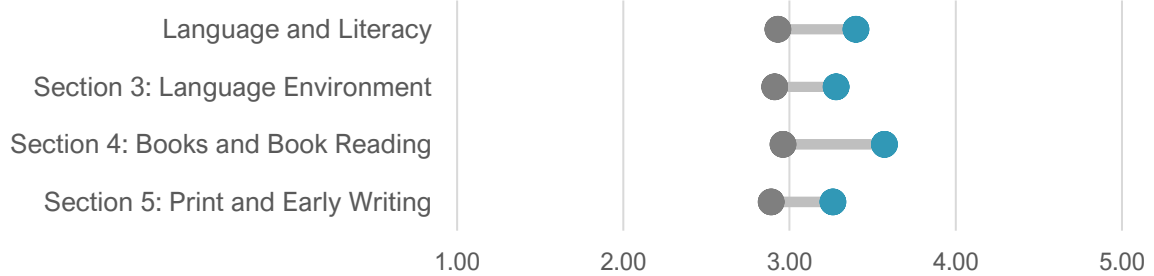
Child Outcomes

Descriptive and exploratory analyses were conducted to examine child outcomes as identified in the logic model and evaluation plan. Descriptive analyses served to illustrate changes occurring in children throughout the year in relation to performance measures, while exploratory analyses examined the significance of these changes when controlling for differences across children, classrooms, and sites. For exploratory analysis, multi-level modeling procedures were employed. Changes throughout the year (term) when controlled for age in months served as the primary model of interest given maturation effects. Details of modeling procedures are further described in the technical report.

Children were assessed with the following measures in fall 2021 and spring 2022:

- Peabody Picture Vocabulary Test (PPVT-5)
- Woodcock-Johnson IV (Letter-Word Identification)
- Woodcock-Johnson IV (Applied Problems)
- Devereux Early Childhood Assessment (DECA)
- Dimensional Change Card Sort (executive functioning)
- Peg Tapping Task (executive functioning)
- BRIGANCE (4-year-olds; kindergarten readiness)

Key Findings

- Children demonstrated a significant increase in WJ-Applied Problems (a measure of ability to analyze and solve math problems) standard scores from fall 2021 compared to spring 2022. Findings were also significant when controlling for age, which suggest children made progress over the year beyond differences in age. Descriptively, 56.3% of children increased standard scores (at least one point) on the WJ Applied Problems (AP) scale from fall 2021 to spring 2022, while 4.4% showed no change and 39.3% decreased. When a higher threshold of change was examined (at least five points), 40.7% of children increased standard scores, while 31.5% showed no change and 27.9% decreased.

- Children demonstrated a significant increase in Peg Tapping scores (a measure of executive functioning) from fall 2021 compared to spring 2022. Findings were also significant when controlling for age. These analyses suggest children made progress over the year beyond differences in age. Descriptively, 52.8% of children increased scores (at least two points) on the Peg Tapping test from fall 2021 to spring 2022, while 34.0% showed no change and 13.2% decreased.

- Spring 2022 performance on the BRIGANCE specific to 4-year-olds was used as a measure of kindergarten readiness. Among 4-year-olds specifically, 64.7% of children were within average to above average limits on the BRIGANCE in spring 2022 (Fig. 6).

- Exploratory analyses identified significant effects from fall 2021 to spring 2022 for PPVT-5, DECA, and the Dimensional Change Card Sort. However, when controlling for age, findings were not significant. No significant changes were found for Woodcock-Johnson Letter-Word identification.

Figure 6. Among 4-year-olds, 64.7% were within average to above average limits on the BRIGANCE in spring 2022.

64.7%
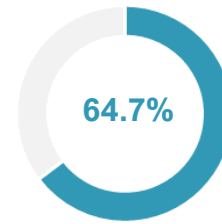
Summary and Considerations

Results from the year one RTC pilot demonstrated promising findings specific to provider effectiveness and selected child outcomes, while highlighting varying levels of implementation fidelity across sites. The summary and considerations below reflect findings from the initial pilot year and areas to strengthen for year two.

Implementation Fidelity

- **Creative Curriculum Implementation:** Previous research from Teaching Strategies (2018) suggested implementation fidelity during the first several months was expected to be lower but increase as teachers became more confident with the curriculum. As expected, overall fidelity of implementation of Teaching Strategies Creative Curriculum was lower as evident from site-level self-assessed fidelity scores (68% of sites reported low levels of fidelity in the fall). Sites also reported increased implementation fidelity at post-assessment (60% of reported high levels of fidelity at post-assessment). This variance in fidelity throughout the year and across sites should be considered when examining outcomes during the first year. Additionally, the percentage of sites reporting high levels of fidelity across various fidelity indicators (Use, Families, Structure) ranged from 4% to 76%. This suggests that while implementation fidelity increased throughout the year, sites have room for further improvement in year two.

- **Educator and Site Director Engagement:** Most site directors and educators who responded to spring 2022 surveys reported that the professional development planning and action planning processes were useful to their work. Educators also reported early learning coaches were responsive to their needs and assistance was of high quality, while most site directors reported satisfaction with the coaching their site received. However, about a third reported being in the middle of agreement with questions about satisfaction, quality, and needs being addressed. Consideration should be given to gauging levels of engagement among educators and site directors throughout year two and identifying areas to strengthen.

- **Training on Curriculum, Assessments, and Screening:** Educators completing the training survey expressed increased understanding and confidence in the use of curriculum and assessment tools introduced through the RTC. However, the extent to which all educators received training at the expected level varied across sites and was difficult to fully determine. Given the importance of these elements to overall model implementation, consideration should be given to developing a process to ensure all educators receive the appropriate training to implement model components. This is especially important given attrition among educators.

Provider Effectiveness

- **Environmental Assessments:** A core purpose of the model is to increase the capacity of early learning sites to provide high-quality early childhood education to children and families. As evident from CLASS, ECERS-3, and ELLCO quality observations, significant increases in quality were found on several domains and associated dimensions/subsections. Quality domains reflected teacher-child interactions specific to emotional support and instructional support, aspects of the classroom environment, and use of literacy practices. While matched participant and site-level analyses offered promising findings specific to increased provider effectiveness, the extent to which environmental measures were administered consistently across all educators and sites varied. Given the importance of assessments in informing coaching supports, ensuring environmental assessments are administered consistently across all educators and sites is an important consideration.

Child Outcomes

- **Analysis and Design Limitations:** Descriptive and exploratory analyses were conducted to examine child outcomes as identified in the logic model and evaluation plan. While analyses assist in understanding potential effects of the RTC model, some aspects of the evaluation design constrain our conclusions. Specifically, causal conclusions are not possible from a pre-post design that does not include a control group not exposed to the intervention. Further, child attendance data were not available at the time of analysis. If attendance data were available, we could examine whether a dose-response relationship exists. If one were present, it would suggest a relationship between the RTC intervention and outcomes. While the attendance data will be included in subsequent reports, the absence of these data limits understanding of the intervention effects. Finally, data from the Woodcock-Johnson and PPVT-5 measures were limited to standard scores. While standard scores are useful in understanding a child's position relative to a normed population, scores may be less sensitive to changes within children across time, especially for younger children. Subsequent data will also consider other scores available from these measures to examine growth (e.g., W score, growth score value).

- **Preliminary Outcomes:** Previous research from Teaching Strategies (2013) suggests greater improvements in child outcomes in year two of Creative Curriculum implementation compared to the first year. Consistent with this prior research, the year one pilot with Building Blocks did not yield significant changes for most child outcome measures (e.g., PPVT-5, WJ-LW, DECA, Card Sort) when controlling for age. However, significant changes were found for the Woodcock-Johnson Applied Problems subscale and Peg Tapping Task (a measure of executive functioning) when controlling for age. While the absence of a control group limits conclusions, these changes among children during the first year are promising.

Next Steps

The three-year RTC pilot is expected to be a learning experience for Building Blocks as the organization works to strengthen the quality of support provided to early learning centers. Toward this aim, year one offered important insights into the challenges and successes associated with implementation. Additionally, most evaluation activities were aligned with intended model implementation and data collection activities. Therefore, year one served as a pilot to inform implementation while also identifying areas for strengthening evaluation activities.

This report represents the results of the pilot year of implementation and was developed for use by Building Blocks to 1) gain understanding of preliminary outcomes and 2) guide implementation moving forward. Toward these goals, the report and all data have been reviewed with Building Blocks leadership. Strategies to strengthen model fidelity and evaluation activities have been identified. Year two of the RTC model implementation for pilot sites started in August 2022. Building Blocks is working to strengthen areas of implementation and implement core components as outlined within the model. Year two evaluation activities will include most measures from year one as well as ongoing data checkpoints to monitor implementation fidelity.