



preschool
PROMISE

WE NEED TO TALK

Montgomery County Early Literacy
Partnership Technical Report

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EXECUTIVE SUMMARY

Over the last several years, a movement to improve reading outcomes has gained momentum at federal and state levels. The Science of Reading, an evidence-based, multidisciplinary approach to better understanding how people learn to read, has been adopted to better improve reading instruction and outcomes for children in Ohio. To that end, the state announced the Comprehensive Literacy State Development Grant with the intention to raise literacy achievement from birth to grade 12, focusing on those who have historically been underserved and undersupported.

Preschool Promise, in partnership with Miami Valley Child Development Centers, received the birth-to-Kindergarten entry grant. In the interest of serving children traditionally underrepresented in early learning initiatives and funding support, **the grant application focused exclusively on those working with infants and toddlers.**

With a three-pronged approach, Preschool Promise coaches, grant coordinators and facilitators emphasized the importance of emergent language and literacy. These three prongs drove our practice: **1) professional development, focusing on intentional literacy practices; 2) improved data literacy for teachers through coaching; and 3) engaging and supporting families through resources and events.**

Our goal was to increase the quality and quantity of serve-and-return interactions – back-and-forth communication between students and educators/caregivers – utilizing tools relevant to teacher practices: a classroom-based assessment tool (CLASS) designed to measure the quality of interactions, while a language environment analysis tool (LENA) focused on the quantity of interactions in the classroom.



DATA SUMMARY

Overall, we found statistically significant positive impacts on the quality and the quantity of interactions between adult caregivers and children, aligned to the mission of the project.

- By the end of the grant period...
- Nearly all classrooms experienced a significant increase in the quality of conversational turns, as illustrated by the CLASS tool. Classrooms on average experienced an increase of more than .7 point in the targeted dimensions of engaged support for learning, language modeling and facilitation of learning and development.
- Overall, classrooms increased the number of conversational turns between adults and children, with a statistically significant increase for those children identified as “low talk” in the classroom—a significant factor for identifying ways to support children’s engagement in language and literacy supports.

AVERAGE INCREASE
IN QUANTITY OF
INTERACTIONS BY

7%

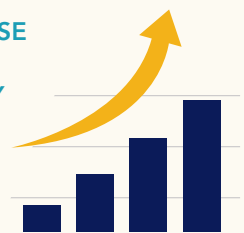
IN SPRING 2024

WITH AN
AVERAGE

33.6
OF
CONVERSATIONAL
TURNS PER HOUR

THE IDEAL TALK
ENVIRONMENT IS

40
CONVERSATIONAL
TURNS PER HOUR



THE "WHY"

The benefits of investments in quality early learning programs begin at birth, with a staggering 13% return on investment overall and the most significant impact among disadvantaged children of color. Investments in quality birth-to-5 early childhood education had a higher impact for disadvantaged children than investing in Preschool alone, which had a return on investment of 7% to 10%. Comprehensive quality programs starting at birth provide improved outcomes for young children long term. This involves integrating health and nutrition; reliable childcare with a developmental focus; and skilled professionals using responsive, relationship-based practices.

Still, funds for infant and toddler programs are in short supply. The Comprehensive Literacy State Development Grant, a newer iteration of the Striving Readers Grant, was the first to include birth to Kindergarten entry in the Department of Education and Workforce scope. Previous funding for program development and support was separate, with separate departments for supporting children in the birth to Kindergarten entry space (the Department of Health and Human Services, now the Department of Children and Youth) and

Kindergarten through grade 12 (Department of Education and workforce). This meant stakeholders were not always on the same page regarding funding priorities, early learning strategies and more. The aim of our program was to support those who needed it most – our littlest learners in a desert of funding and professional development.

The research is clear: foundational early literacy skills are laid in the early years, when infants and toddlers are first learning to communicate. These essential components for emergent language and literacy – including vocabulary, grammar, syntax and the pragmatic function of language, among others – are critical to supporting long-term school success and positive outcomes. Our work focused on the everyday interactions between these young children and their caregivers.

By focusing on the quality and quantity of interactions, primarily observed through conversational turns embedded into everyday moments, we hoped to ensure that each child would be engaged in the types of responsive environments research has shown to improve later school outcomes.



"...our goal in coaching was to ensure that these monthly trainings also translated into daily practice, embedding intentional strategies into routines and lesson plans."

Over the course of four years, we identified a few key factors that impacted our work with infant/toddler educators. We began with creating a list of key terms, discussing their operational definitions for educators and slowly scaling our efforts to include more educators at each site. Below is a list of the key influences we encountered and how we worked to address them.

Teacher Turnover

Teacher turnover was a key issue. Within the grant classrooms, teacher retention issues increased between Year 3 and Year 4. In the first two years, three teachers left the cohort due to military relocation of spouses and restructuring within a program. In the final two years, more teachers left the cohort for personal reasons. Many left their site, and a few left the field altogether or retired. This suggests a larger issue facing the field of early childhood education – one that will be explored more thoroughly in a subsequent project report. This made planning for our training more challenging, as we had to bring new members to the Professional Learning Community (PLC) up to speed while continuing to challenge and support those who had been part of the community from the beginning. Just as we differentiate instruction for children in the classroom, we had to differentiate professional instruction and provide support for a wide range of experience, education level and years in the program.

Bridging the Theory-Practice Gap

Our initial surveys of teachers prior to the start of the grant revealed that many teachers had the knowledge to care for young children but at times did not articulate their understanding of child development. We addressed this as we worked to create a common lexicon – providing definitions of terms like expressive and receptive language, evidence-based practices and emergent language and literacy in practical, realistic terms. The intention of our Professional Learning Communities was to highlight specific practices, reflect on key resources and discuss the practical implications; our goal in coaching was to ensure that these monthly trainings also translated into daily practice, embedding intentional strategies into routines and lesson plans.

Shifting Mindsets From “Early Care” to “Early Care and Education”

A debate is arising in the field of early childhood education. As science has progressed, the early childhood community has become increasingly aware of the critical period of development in the first five years of life. Longitudinal studies of child development and the ability to scan the brain and study the impacts of trauma and stress on the brain have underlined the critical importance of early care and education. However, the field of *education* has not necessarily reflected the understanding of this science. Many programs still emphasize the care part of early care and education. Infant/toddler programs provide high-quality *care* but often lack the supportive resources to provide curriculum support and intentional planning to emphasize the *education* piece of this equation. While many commercial curriculum models include infants, toddlers and 2-year-olds in their program offerings, many centers lack the resources to provide coaching and training for their infant/toddler educators. One of our goals of this program was to bring these discussions to the forefront. The long-term intention of ongoing professional development for infant/toddler educators should focus on an organized sense of being with infants and toddlers – engaging them in conversations instead of talking over them or at them with directive speech. In essence, we want to ensure that educators are providing a responsive curriculum emphasizing meaningful, responsive interactions, conversations and supportive activities. The aim should be viewing the curriculum as something to do and be *with* children, instead of something to do to them.

When we look programmatically at ratios, we need to consider the impact of having four to six infants with one educator. Such high infant-to-adult ratios make it difficult for educators to remain regulated and provide thoughtful, responsive, intentional interactions with children without being overwhelmed by the high emotional needs of children under 2.

Developmentally Appropriate Practices

While we started with trying to establish a common lexicon, our program facilitators recognized the need for reflecting on classroom practices for infants and toddlers. This is specific to the education component of the field. During our Professional Learning Community meetings, we began to include hands-on workshops following an “I do, we do, you do” strategy in which facilitators would model the behavior targeted in the training (“I do”); teachers would practice the skills in the workshop with each other and facilitators (“we do”); and then teachers would try out the practices in the classroom (“you do”).

For example, we developed and introduced resources for using specific books in the classroom and modeled how to use them. Next, educators practiced reading the books to their peers, reflecting on their experience. During coaching sessions, coaches asked how the practices translated to working with children.

In a similar way, we employed play-based strategies we referred to as “invitations to play” – showing that how materials are set up and presented to children can increase engagement and decrease the need for redirecting challenging behaviors.

Essential Tools

The program used two tools to measure outcomes for children and adults.



The Classroom Assessment Scoring System, or CLASS, is a standardized tool used to measure the quality of interactions between adult caregivers and young children in the classroom. This observation instrument covers up to seven dimensions of quality interactions based on teacher-focused behaviors. It involves a certified evaluator observing teachers in the classroom with young children for two series, each with the evaluator observing in 20-minute increments. After the assessment, the evaluator compiles a numerical score – low (1-2), medium (3-5) or high (6-7) – based on key indicators for each dimension. Evaluators provide the scores to the teachers, along with feedback for improving practices.

Observations include positive and negative classroom climate, teacher sensitivity, quality of feedback, language modeling, behavior guidance, facilitation of learning and development and regard for child perspectives. Language elements are critical in this process, focusing on key behavioral practices for teachers. This includes self-talk, reinforcing positive behavior through behavior guidance strategies, repeating and extending children’s language use and scaffolding children through both play and language pragmatics.



The Language Environment Analysis (LENA) system uses technology and data to measure the quantity of serve-and-return interactions between adult caregivers and young children.

During a LENA day, children wear a vest with a small recorder that captures the vocalizations of children and adults in the classroom. A conversational turn is noted when the adult response to a child vocalization occurs within five seconds and in close proximity. These recorders do not capture what was said but rather measure the vocal wavelengths of different people. At the end of a LENA day, the recorder data is uploaded for analysis. Reports illustrate the child and adult vocalizations as well as the conversational turns.

LENA also provides a coaching protocol following a job-embedded coaching approach. Coaches print the reports and share them with teachers, looking at the hourly breakdown of vocalizations as well as the number of conversational turns. This helps teachers zoom in on hours of high conversational turns and individual child vocalizations to maximize engagement and connection. The intention is to reduce language isolation, identified as a child experiencing fewer than 15 conversational turns in an hour. LENA’s robust resource library provides insight into 14 talking tips that help adults support a wider variety of vocabulary heard (receptive language) and opportunities for the pragmatic use of spoken language (expressive language). This minimizes directive speech (commands given by adults to children) and enables children to engage in key components of language exploration such as answering questions or filling in the blank instead.

CLASS Scores

CLASS evaluations are divided in classrooms based on the children's ages; the determination for the infant or toddler assessment is based on the age of the majority of the class. Classrooms are evaluated using the infant tool if the majority of children fall under 15 months of age.

The tables below illustrate the scores for each site under each CLASS dimension. We looked at the scores in Year 4, with evaluations completed at the following times:

- Fall 2023 prior to LENA sequences and delivery of Professional Learning Community (PLC) content
- Spring 2024 at the conclusion of the second LENA sequence and the end of the PLC

In the first table, we noted the differences for each site between the two evaluation periods for each dimension as well as each site, with a calculated average difference at the bottom. Of the seven infant classrooms, six showed positive substantive improvement in overall responsive caregiving from the Fall to the Spring. Most notably, five of the seven classrooms showed increases of more than two-thirds of a point on the 1-to-7 scale for early language; six of the seven showed positive substantive improvement on facilitated exploration. This finding suggests that through job-embedded coaching and utilizing an emergent-style curriculum for PLC trainings, **our interventions supported an increase in the quality of interactions on the dimensions we targeted most.**

Infant CLASS Scores, Fall 2023 and Spring 2024	Responsive Caregiving		Early Language Support		Facilitated Exploration		Relational Climate		Teacher Sensitivity	
	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
Bombeck Family Learning Center - Flyers	4.07	4.75	3.33	4.50	3.66	4.50	4.66	5.00	4.66	5.00
Bombeck Family Learning Center - Sunbeams	4.66	5.42	3.66	5.00	4.33	5.33	5.66	5.67	5	5.67
Dayton Christian Center - Rising Stars	4.5	5.50	4.33	5.67	3.66	5.67	5	5.33	5	5.33
Hope Center for Families/ Mini University - Nursery 1	5.66	6.17	5.33	6.00	5.33	5.67	6.33	6.33	5.66	6.67
Hope Center for Families/ Mini University - Nursery 2	6.07	5.58	5.66	5.33	5.66	5.00	6.66	6.00	6.33	6.00
KECEC - Infant I Classroom	5.75	6.25	5.33	6.00	5.33	6.00	6.33	6.67	6	6.33
KECEC - Infant II Classroom	5.83	6.08	5.66	5.67	5	5.67	6.33	6.67	6.33	6.33
Average Score	5.22	5.68	4.76	5.45	4.71	5.40	5.85	5.95	5.57	5.90

Difference Fall to Spring

Bombeck Family Learning Center - Flyers	0.68	1.17	0.84	0.34	0.34
Bombeck Family Learning Center - Sunbeams	0.76	1.34	1.00	0.01	0.67
Dayton Christian Center - Rising Stars	1.00	1.34	2.01	0.33	0.33
Hope Center for Families/ Mini University - Nursery 1	0.51	0.67	0.34	0.00	1.01
Hope Center for Families/ Mini University - Nursery 2	-0.49	-0.33	-0.66	-0.66	-0.33
KECEC - Infant I Classroom	0.50	0.67	0.67	0.34	0.33
KECEC - Infant II Classroom	0.25	0.01	0.67	0.34	0.00
Average Difference	0.46	0.70	0.69	0.10	0.34

“This [CLASS] tool is used to assist teachers with setting up the environment, as well to how to encourage the children to have conversation with teachers and peers in the classroom. “

— Infant/Toddler Educator

Similarly, for toddler classrooms, we found that of nine toddler classrooms, six showed positive substantive improvement in emotional and behavioral support between the two evaluation periods, an average increase of .3. More notably, seven of the nine classrooms showed substantial increases of more than half of a point on the 1-to-7 scale for engaged support of learning. The average increase across all nine classrooms was .7 – a significant improvement in the quality of interactions.

Toddler CLASS Scores, Fall 2023 and Spring 2024 by Engaged Support for Learning Domain and Dimension	Engaged Support for Learning				Facilitation of Learning and Development			Language Modeling			Quality of Feedback		
	Fall	Spring	Diff	Average	Fall	Spring	Diff	Fall	Spring	Diff	Fall	Spring	Diff
Bombeck Family Learning Center - Aviator Classroom	3.5	4.4	0.9	0.8	4.0	5.0	1.0	4.0	5.3	1.3	2.5	3.0	0.5
Bombeck Family Learning Center - Glider Classroom	3.1	3.7	0.6	0.6	3.7	4.0	0.3	3.7	5.0	1.3	2.0	2.0	0.0
Hope Center for Families/ Mini University - Green Room	4.3	5.0	0.7	0.2	5.0	5.3	0.3	4.7	5.3	0.7	3.3	4.3	1.0
Hope Center for Families/ Mini University - Yellow Room	3.8	4.3	0.5	0.4	4.0	5.0	1.0	4.5	5.3	0.8	3.0	2.7	-0.3
Kettering Early Childhood Education Center - Toddlers	2.8	4.3	1.5	0.9	3.0	5.0	2.0	3.7	5.0	1.3	1.7	3.0	1.3
MVCDC - Kings Highway - Grey Room	4.4	4.6	0.1	0.0	4.7	4.7	0.0	5.0	5.7	0.7	3.7	3.3	-0.3
MVCDC - Kings Highway - Silver Room	3.8	4.0	0.2	-0.7	4.0	4.7	0.7	4.7	4.7	0.0	2.7	2.7	0.0
MVCDC - Kings Highway - Violet Room	3.2	4.0	0.8	0.7	3.3	4.7	1.3	4.3	5.0	0.7	2.0	2.3	0.3
Rainbow Years - Toddler	3.6	4.7	1.1	0.0	4.0	5.0	1.0	4.3	5.7	1.3	2.3	3.3	1.0
Average	3.6	4.3	0.7	0.3	4.0	4.8	0.9	4.3	5.2	0.9	2.6	3.0	0.4

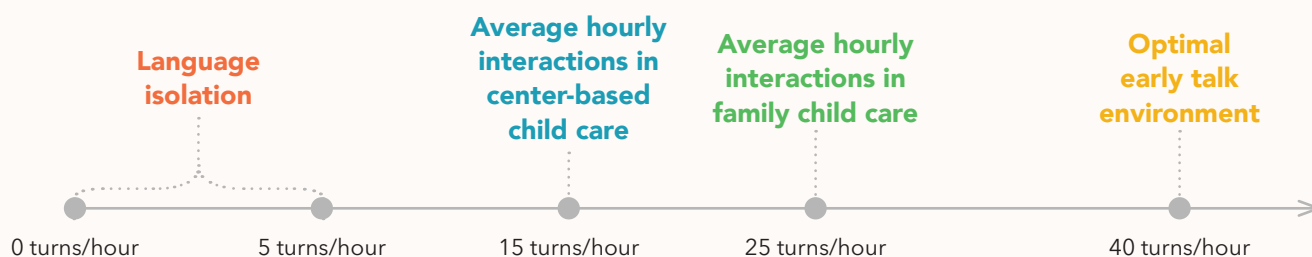
In examining the engaged support for learning by domain of individual dimensions, eight of the nine classrooms had increases in facilitation of learning and development, with an average increase of nearly a full point (.9) on the 1-to-7 scale. Eight out of nine classrooms had increases in language modeling, with an average increase of .9. For both of these measures, the remaining classroom maintained its score from Fall to Spring.

These findings suggest that our targeted interventions of job-embedded coaching and relevant PLC training content, directly shaped by the needs of teachers and the children in their classrooms, had significant positive impacts on the quality of interactions. Our aim was to specifically target language development through language modeling and quality feedback through play-based strategies. Overall, all classrooms showed significant positive changes toward this goal.



LENA and Equity

For measuring our impact on the quantity of conversational turns, we utilized the research base and benchmarks established by LENA. Based on studies of more than 15,000 children across more than 2,000 classrooms worldwide, LENA identified benchmarks for ideal talk environments. The benchmark of optimal early talk is 40 conversational turns per hour. This ideal talk environment is based on the conversational turns found in a home setting with a child's primary caregivers.

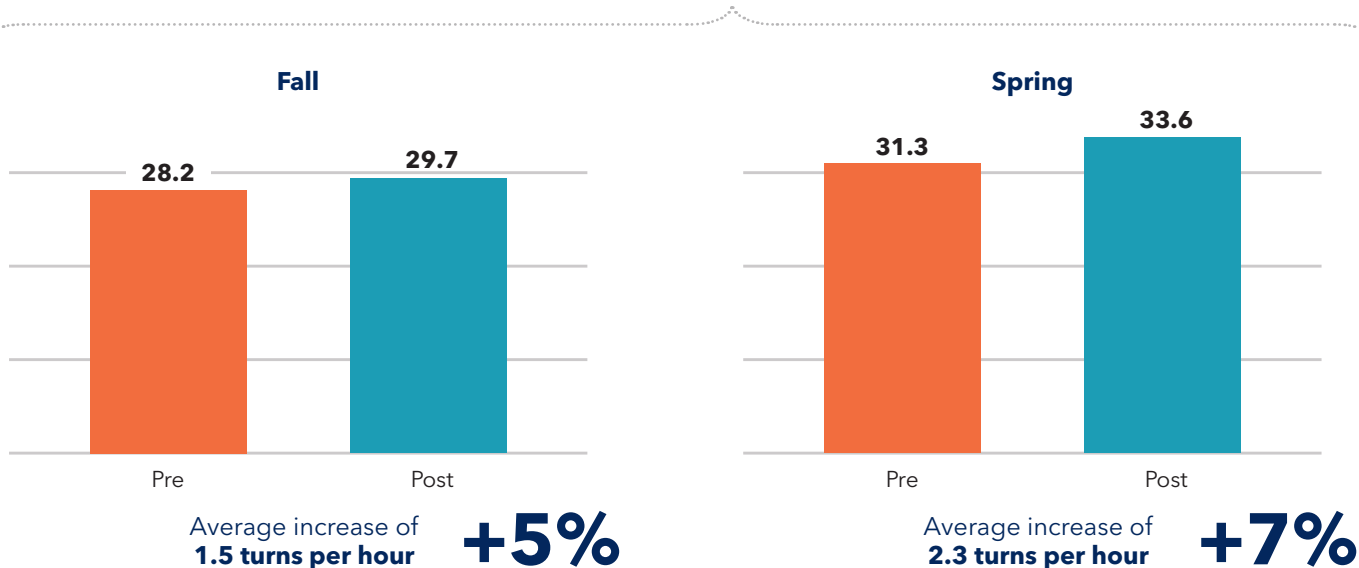


Reference: LENA Benchmarks

These conversational turns benchmarks are derived from the baseline LENA data of more than 15,000 children across more than 2,000 classrooms worldwide. Publicly funded, privately funded, center-based and family child care sites are all represented within the sample, as are all 10 Head Start regions. Further information can be found at lena.org/research.

After LENA's impact report analysis, our data illustrated an interesting set of findings. Overall, the average conversational turns for all participating children increased in both the Fall and the Spring in Year 4. Our goal was to increase the quantity of conversational turns, aiming for 40 per hour. Many of our classrooms started out above the average hourly interactions in center-based care (15 turns per hour), with our average number of returns exceeding the average hourly interactions in family child care (25 turns per hour). These changes were observed over the course of two five-week LENA sequences with one data collection day per week.

All children conversion turns

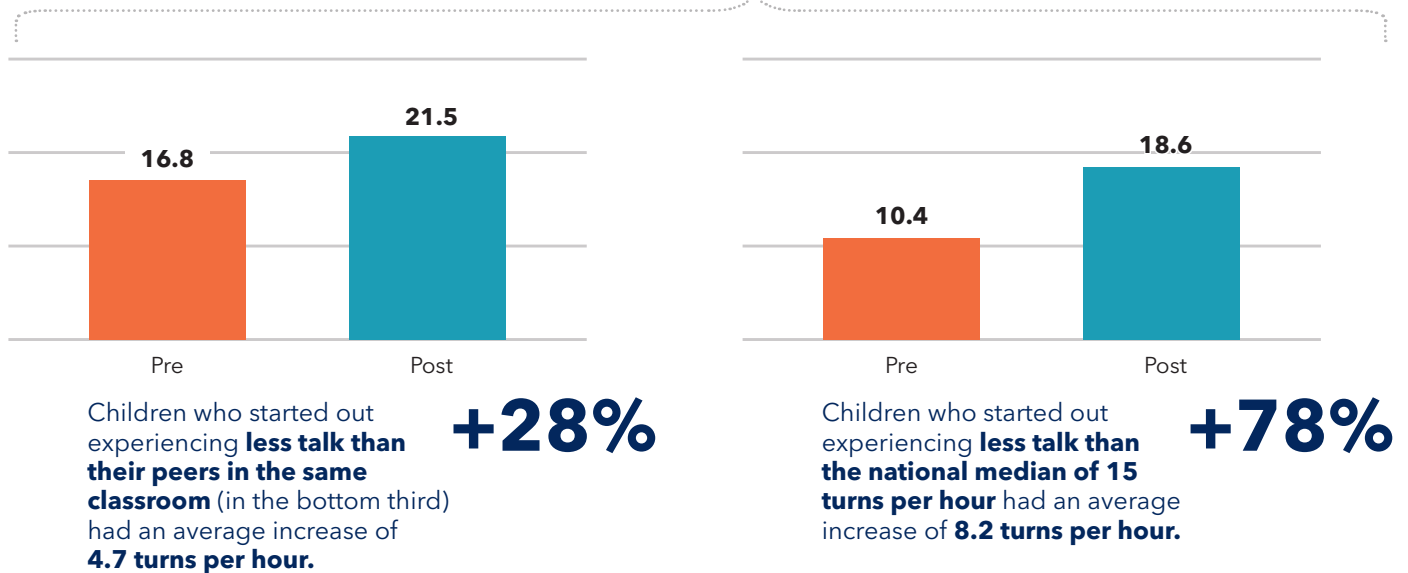


Most notably, our program had the most significant impact on children in the bottom third of the classroom conversational turn averages, as well as those children individually falling into the low talk category (less than 15 turns per hour on average). This suggests that the use of LENA, along with the job-embedded coaching protocols associated with the program, supported teachers in identifying children who fell into the low talk category and supporting the increase of positive teacher-child interactions – yielding an increase in conversational turns.

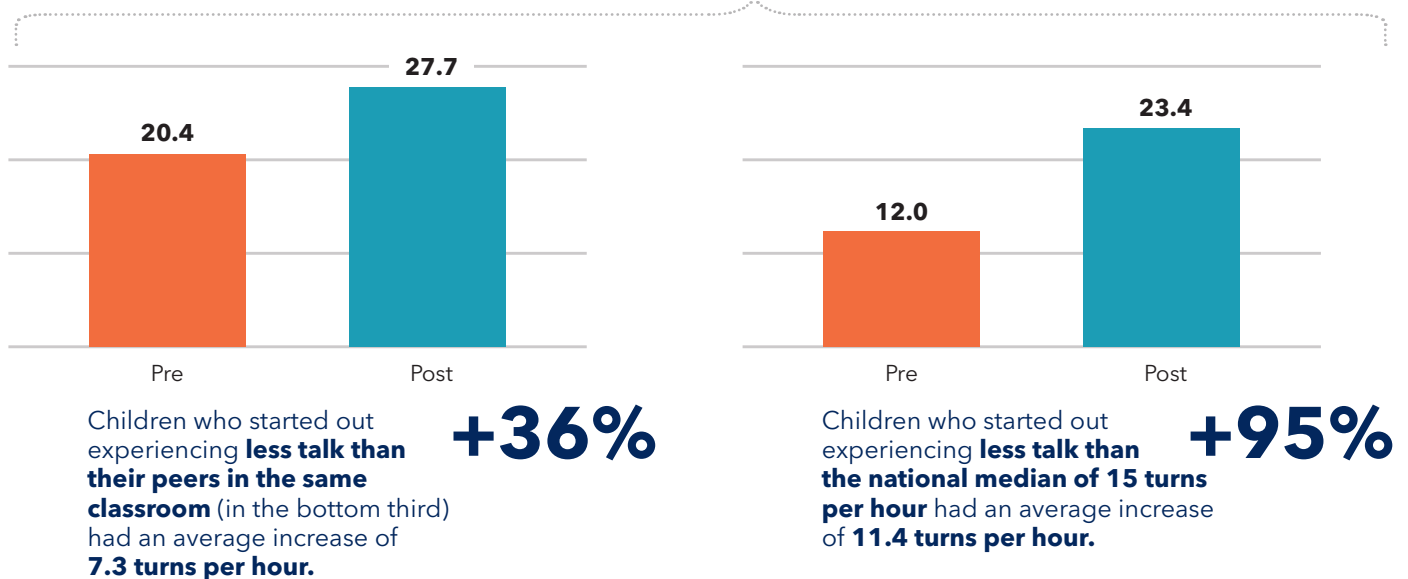
Child Equity

LENA Grow is designed to encourage more equitable talk environments. Two segments of children measure this impact:

Grow 1: Classroom LENA Sequence Fall 2023



Grow 2: Classroom LENA Sequence Spring 2024



Using statistical analysis, we also looked at the child impact statistics from the LENA Impact Report. Cohen’s d, in this case, is a measurement of the standardized mean difference, examining the effect size of the data set. While we had a smaller effect size for participants overall, the bottom third of all classrooms had a medium effect size, and children in the low talk category had large effect sizes. In other words, classrooms overall started with higher conversational turns, so despite increasing conversational turns over time, the effect was small though positive. However, in Spring 2024, the bottom third of the room (children experiencing less talk than their peers) and those identified as experiencing less talk than the standardized national mean of 15 turns per hour logged large effect sizes. **This finding suggests, again, that our coaching and data collection tools have statistically significant positive impacts on the quantity of conversational turns.**

Child Impact Statistics on Conversational Turns per Hour

Time Frame	Impact Segment	Sample Size	Cohen’s d	Effect Size
Fall 2023	All Participants	123	0.1	small
	Bottom Third of Room	35	0.7	medium
	Low Talk (>15 turns)	16	2.6	large
Spring 2024	All Participants	122	0.2	small
	Bottom Third of Room	36	0.9	medium
	Low Talk (>15 turns)	11	4.8	large

ASQ and LENA Conversational Turns

Educators conducted the Ages and Stages Questionnaire (3rd Edition Revised) – commonly known as ASQ – for the majority of children participating in the grant. Questionnaires are conducted on a regular basis, with more frequent surveys conducted with younger children as they grow and change at a faster rate. These questionnaires are screening tools, used not to diagnose children, but rather to identify children who may need additional assessment and referrals if they are falling below widely held expectations. For progress monitoring, these assessments were conducted in the Fall and in the Spring, coinciding with a pre-LENA and a post-LENA observation period.

Our data analyst looked at each of the five developmental areas on the questionnaire for analysis for the 69 children who had assessments completed for Fall 2023 and Spring 2024. These areas include communication, gross motor, fine motor, problem solving and personal-social skills. As identified in the table at the top of page 13, children falling in the darker yellow areas are flagged as “further assessment may be needed”; children falling in the lighter yellow area are suggested for adults to “provide learning opportunities and monitor”; children in the third group are developing “on schedule.”

“The LENA tool is a great way to log a child's serve and return as well as see how much intentional conversation you are having with them as an educator.”

— Infant/Toddler Educator

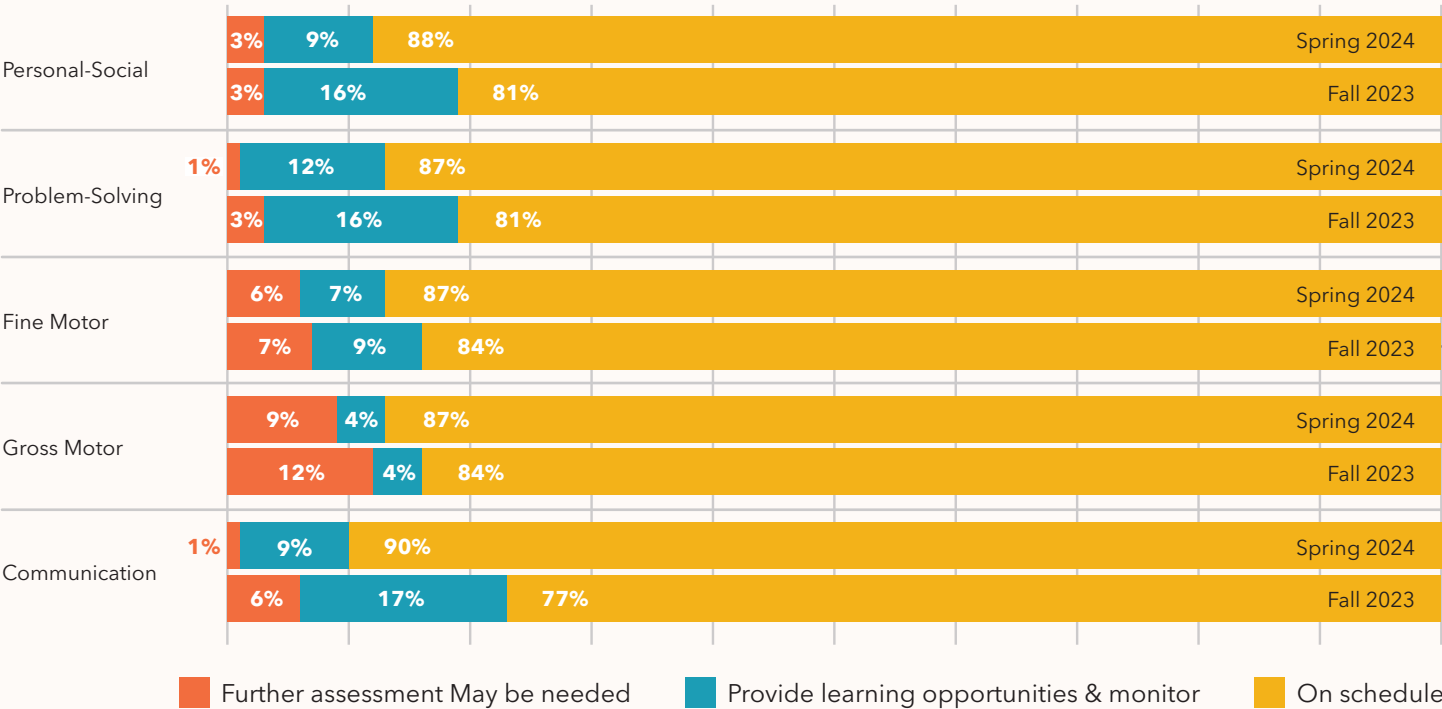
ASQ Subscale Scores, Matched Sample of Children, Fall 2023 and Spring 2024

	Subscale Score, Fall 2023												
ASQ Subscale	10	15	20	25	30	35	40	45	50	55	60	Total	Sample Size
Communication	1%	3%	1%	4%	10%	3%	1%	10%	13%	13%	39%	100%	69
Gross Motor	0%	0%	3%	0%	4%	1%	3%	4%	12%	12%	61%	100%	69
Fine Motor	0%	1%	3%	1%	1%	0%	9%	3%	22%	13%	46%	100%	69
Problem-Solving	0%	1%	1%	0%	7%	9%	12%	10%	19%	9%	32%	100%	69
Personal-Social	0%	0%	0%	1%	1%	6%	10%	13%	20%	17%	30%	100%	69

	Subscale Score, Spring 2024												
ASQ Subscale	10	15	20	25	30	35	40	45	50	55	60	Total	Sample Size
Communication	0%	1%	0%	1%	4%	3%	10%	3%	17%	7%	52%	100%	69
Gross Motor	0%	0%	0%	1%	1%	0%	6%	4%	19%	13%	55%	100%	69
Fine Motor	0%	0%	0%	0%	6%	3%	4%	9%	14%	12%	52%	100%	69
Problem-Solving	0%	0%	0%	1%	3%	9%	10%	6%	12%	17%	42%	100%	69
Personal-Social	0%	0%	0%	1%	1%	1%	7%	6%	14%	14%	54%	100%	69

Based on this analysis, the great majority of children assessed in Fall 2023 were identified as “on schedule,” and that percentage increased in Spring 2024. Notably, the data revealed an increase in the percentage of children regarded as “on schedule” for communication skills (from 77% in Fall 2023 to 90% in Spring 2024), as well as an increase for personal-social skills (from 81% to 88%) and problem solving skills (81% to 88%). While this could be attributed to the natural growth and development of children, it is still a noteworthy finding. The chart below provides a visual sample of how ASQ subscale scores changed from Fall 2023 to Spring 2024. **This suggests that our focus on language and literacy practices in our training had an impact on supporting children falling below developmental norms, as illustrated by the decrease in number of children for whom further assessment may be needed, and increasing the number of children on schedule for development.**

Distribution of ASQ Subscale Scores by Intervention Indication, Matched Sample, Fall 2023 and Spring 2024



Our hypothesis was that increases in LENA conversational turns could positively influence ASQ scores. In essence, our goal of increasing serve-and-return interactions was a means of positively impacting the overall development of infants and toddlers in the program, specifically supporting those who fell into the categories of “further assessment may be needed” and “provide learning opportunities and monitor.” The table below illustrates a regression analysis for ASQ scores for Spring 2024. The table shows that in three of the five regressions, the change in LENA conversation turns at the beginning of the year in Fall 2023 (pre) and the end of the year in Spring 2024 (post) had a statistically significant positive impact. For example, a 10-unit change in conversational turns from pre to post led to an increase in the communication subscale score. **This finding suggests that increases in LENA scores had a positive effect on ASQ scores, with a key emphasis on communication.**

Results of Ordinary Least Square Regression Analysis for ASQ Scores, Spring 2024

Independent Variables		Dependent variables				
		ASQ Spring 2024				
		ASQ Total Score	Non-Motor Subscales Combined	Communication	Problem-Solving	Personal-Social
Constant	Beta Coefficient	171.078	98.282	26.487	28.3	33
	p-value (sig.)	0.000	0.000	0.000	0.000	0.000
Change in LENA Conversation Turns Pre to Post, 2023-24	Beta Coefficient	0.501	0.56	0.206	0.157	0.197
	p-value (sig.)	0.087	0.008	0.045	0.089	0.015
Communication Fall 2023	Beta Coefficient	1.391	1.102	0.388	0.386	0.233
	p-value (sig.)	0.000	0.000	0.000	0.000	0.002
Problem-Solving Fall 2023	Beta Coefficient				0.10	
	p-value (sig.)				0.324	
Personal-Social Fall 2023	Beta Coefficient					0.20
	p-value (sig.)					0.078
Fine motor Fall 2023	Beta Coefficient	0.54				
	p-value (sig.)	0.085				
Age (in Months) at Test Date, Fall 2023	Beta Coefficient		0.39	0.40		
	p-value (sig.)		0.164	0.004		
Sample Size		65	65	65	65	65
Adjusted R2		0.403	0.428	0.314	0.338	0.286

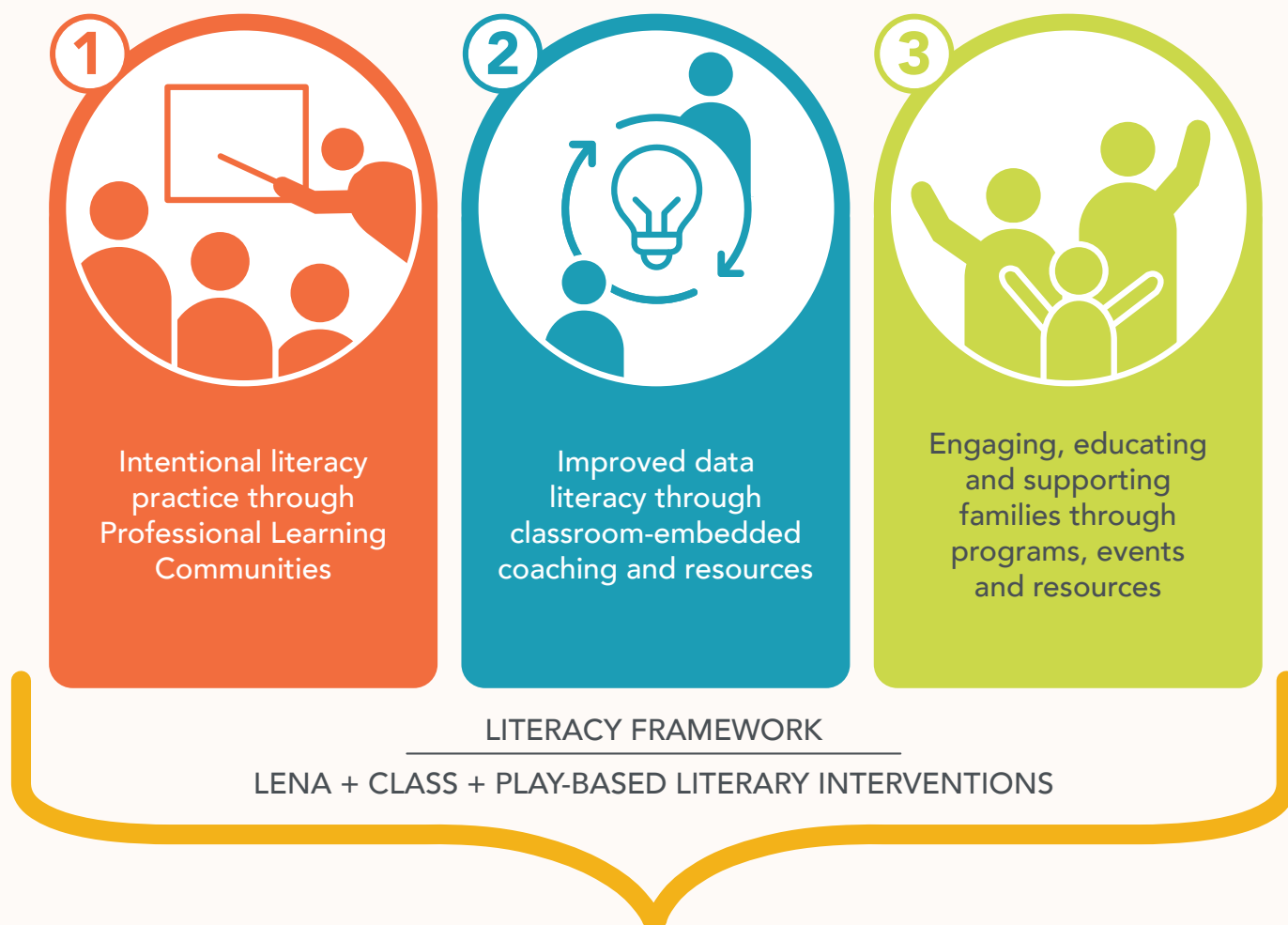
significant at <.01

significant at .01 to .05



THREE-PRONG APPROACH FOR BRIDGING THE THEORY-PRACTICE GAP

By organizing our interventions within this three-prong model for bridging the theory-practice gap, we were able to streamline our literacy plan – as required for grant compliance – into meaningful, actionable steps.



Approach 1

Professional Learning Communities (PLC) and Training

To support the development and use of serve-and-return interactions throughout the day by using the “Play to Learn” framework as a curriculum supplement, using CLASS and LENA data to target behaviors and using cumulative, short-cycle surveys for reflective practice.

Approach 2

Classroom Coaching and Assessment

To increase data literacy and professional language around literacy development by implementing CLASS, LENA and a fidelity tool in support of curriculum fidelity, quality interactions and identifying professional development goals.

Approach 3

Family Engagement and Education

To extend language and literacy development from the classroom to the home environment through increased participation in the Dolly Parton Imagination Library, targeted supports for positive interactions with the children and enrollment in a text/newsletter campaign to connect families to school practices.

For each of the three prongs, we gained insight into the needs of infant/toddler programs and the teachers working with our littlest learners. Often, our investment in early childhood education involves the Preschool age group, providing professional development, resource creation and family support around Kindergarten readiness. **However, learning begins at birth – and the gaps between these three prongs of quality program support are most evident in the first three years of life.**

One of the foundational elements in all of these gaps is the importance of relationships – between coaches and teachers, teachers and children and programs and families. In a post-COVID world, these relationships often must depend on clear written communication, oftentimes in place of meaningful, authentic, in-person conversations. The rise of technology in programs increases the efficiency of communication, though sometimes at the cost of key relationship-building practices. Due to many programmatic restraints early on in the project, coaching and training took place over Zoom or other video conferencing platforms. While virtual training provided some flexibility, the meaningful and authentic connection between teachers and coaches was stronger when it took place face-to-face. Positive outcomes increased when coaches were on-site more frequently – another factor to be considered for future programs.

"While virtual training provided some flexibility, the meaningful and authentic connection between teachers and coaches was stronger when it took place face-to-face."

A few key obstacles were apparent from the beginning. First, teachers often lacked support for implementing curriculum – and thereby curriculum-based assessments – to fidelity. The planning forms did not always support classroom practices, and onboarding for some was slow – a detriment to implementing curriculum meaningfully. Additionally, teachers struggled from the beginning with drafting their own measurable goals for personal development.

We used a variety of strategies for supporting goal development and action plans, modifying each year to meet the needs of participating teachers.

A significant hurdle was finding time to meet with teachers outside of the classroom, as well as ensuring that teachers had time for group planning. At different points in the grant program, funding was provided for substitute teacher coverage to support shared planning time or coaching. However, due to teacher turnover and the staffing crisis, this was not always feasible. Some of the biggest challenges for programs are also the most persistent – providing sufficient staffing coverage for best practices with children, minimizing negative impacts for young children bonded to their primary caregivers and having additional time and support for coaching and planning.

The supervisory structure of programs was another obstacle we encountered. In Years 3 and 4, we created a series of administrator walk-through guides to support progress toward individual goals and align with CLASS dimensions. Additionally, our PLC facilitators and coaches created an early language support and language modeling form to tally the number of times administrators observed teachers engaging in these behaviors. However, administrator capacity to complete these forms was sometimes hindered by staffing shortages as well as the demands of running the program. In short, programs tended to lack curriculum leadership to model best practices, while program administrators' responsibilities to run the centers as businesses sometimes stood in the way of supporting the program. This balance of leadership (curriculum-based support) and management (running a center in a business-focused model and focusing on compliance for funding and licensure) tended to lean toward management, again underlining the dearth of curriculum support for infant and toddler professionals in the classroom.

Despite these challenges, programs demonstrated growth toward developmentally appropriate practices as well as improved outcomes in the quality and quantity of conversational turns. These are categorized below as "glow," or improvements, and "grow," or areas where continued growth is needed.

Self-Reported Behavioral Responses

In addressing the “glow” and “grow” for the three prongs, we surveyed teachers about behavioral changes during the nine-month program period to identify whether teachers utilized behaviors aligned with CLASS and LENA. Using a Likert-type scale, teachers responded to whether they never, rarely, sometimes, often or consistently used specific behaviors addressed during coaching and the PLC training sessions. Our response rate for the PLC was around 74%, and no direct incentive was provided for responding to the survey. Overall, of the 26 out of 35 teachers who responded, 38% found the training to be very helpful, with 58% stating the PLC was extremely helpful in their classroom practice. An overview of responses appears below.

	During	Sometimes	Often	Consistently
Parallel-Talk: Narrating the children's actions or things that are happening around them	Play Experiences	4%	37%	59%
Communication Support: Encouraging children to vocalize by providing words and language for children to use	Routine	0%	48%	52%
	Play Experiences	7%	37%	56%
Repetition and Extension: Repeating and extending children's communication attempts and language	Play Experiences	4%	37%	56%
Joining in Experiences: Joining in children's play to provide intentional opportunities and guidance for learning and development	When teachers see children exploring books	4%	44%	52%

Professional Learning Communities and Training

Part of the strength of our Professional Learning Community and training was the ability to build on the skills and knowledge base of working within Preschool Promise, a local leader in providing training for Preschool teachers in Dayton and Montgomery County. As such, teachers had a level of trust with the organization providing grant support and interventions. An additional strength was the ability to connect educators from multiple sites to see a broader view of the work, differing perspectives on the needs of children and shared struggles in supporting the social, emotional and developmental needs of infants and toddlers.

Glow

The Professional Learning Communities and training sessions had overwhelmingly positive responses from educators – many of whom had not previously had the opportunity to connect with educators across different sites. When asked how the PLCs could be improved, 42% of respondents stated that no change was needed for the PLC or program. A few responses mentioned wanting to continue the program and to “bring more educators into our circle and share our knowledge about how important the first five years are.” Another respondent stated she would like for Preschool Promise to “keep it going if you get true funding.” At the final poster session, where teachers presented their findings to the cohort, community members and stakeholders, the No. 1 question teachers asked was, “What happens next?” The sense of belonging to a community of educators with diverse backgrounds serving in a variety of sites was a firm foundation for continued work.

“This PLC has helped me to reflect on my daily teaching through coaching and the training. These opportunities let me build upon my skills and create a more intentional learning environment.”

— Toddler Educator



As part of the question “What did you like best about this PLC?”, 19% of respondents discussed the importance of collaboration – within their center, across centers and with their coaches. One respondent mentioned how she “liked the engagement and the togetherness” and that “meeting new educators that share the same or similar experiences in the classroom as myself” was the best part. Additionally, 23% of respondents mentioned that schema-based play sessions of the PLC were most meaningful and impactful for their classroom practice. PLC sessions focusing on schema play and invitations to play were hands-on workshops run by the instructors, providing a framework for educators to explore with real, open-ended materials and purchase materials used within the workshop.

Another benefit to the program was an emergent curriculum approach with educators. Especially in Year 4, the content for training was carefully and closely tied to observations from the coaches. While we had a framework in mind of what we wanted to address in the training, we left it open to meet the observed and expressed needs of the teachers and coaches. This enabled our facilitators to provide the previously mentioned workshops, addressing the needs in almost real time, bridging the gap between the theory discussed in training and the job-embedded coaching provided over the nine months.

Grow

With such a wide variety of experience in the field – in both number of years and education level – it was at times difficult to discern how best to approach content for the trainings. Teachers had different ideas about ways to support infants and toddlers in early childhood programs, leading to discussions about ways to support the development of language and literacy skills.

During a PLC in Year 2, one teacher shared ways she had used books to design supportive activities with the toddlers in her classroom. This led to a teacher to ask, “Are we talking about babies here?”

Or Preschool? Because I just don’t see this as working for infants.” This sentiment was reflected in a couple of responses from other educators in the training. It was difficult to focus on curriculum or diving deeper until we addressed the fundamental needs of young children and development, as well as how best to support their language and literacy learning. This would involve reconciling the care aspect of the work with the *education* component, again emphasizing the importance of reframing curriculum as what we do *with children* – not just the talking *at* children that curriculum is often reduced to.

The time commitment and responsiveness to teacher workload was also a factor. In response to the question “How could this PLC be improved?”, 4% of respondents discussed more PLC session-specific changes, such as shortening meetings and offering virtual sessions. One respondent stated she would like to see “more Zoom meetings instead of in person. It’s hard to go straight from working a nine-hour day to a two-hour training then driving another 30 minutes home.” With PLC sessions meeting monthly from 6:30 to 8:30 p.m., sessions would sometimes start late to accommodate teacher work schedules. At this late hour, teachers were not always in the mindset for reflective practice or deeper learning.

Ongoing, authentic assessment during training would be one way to validate adult outcomes and impact on teacher behavior. It is critical to assess learning within the PLC to ensure goals are met. While facilitators said the content was clear and that resources were provided to promote understanding and practical implications for implementation in the classroom, participants’ mastery and deeper understanding sometimes varied depending on background, years of experience in the field and education levels. This could also be the result of the greater number of participants; up to 35 teachers attended training, whereas standard PLCs at Preschool Promise typically cap at 25. Future programs should consider the capacity of teachers to learn, including reflecting on the number of sites and participants involved in the program.



“Coaching supported my perception on the importance of play and planning experiences for my infants by encouraging the intentional planning of open-ended provocations that allowed for extended serve and return opportunities. Because of our sessions, I have become more intentional in my lesson planning and providing materials that will keep the children engaged.”

— Infant Educator

LENA Data and Coaching

Job-embedded coaching was a key component of grant fund allocation, alongside the coaching protocols associated with the LENA program. In addition to the two five-week LENA data collection sequences, Year 4 involved general coaching in the classrooms. Based on coach capacity, the goal was to provide general classroom coaching and relationship building weekly. Due to maternity leave and program structure, however, coaching varied across sites. The intention of coaching was to help bridge the gap between theory covered in the PLC and practice in the classroom. LENA reports – measuring the quantity of conversational turns within each classroom on one day a week – alongside general classroom and curriculum-based documentation drove coaching conversations.

Glow

Overall, teachers reported the helpfulness of coaching, especially supported by LENA data reports. Many teachers had never received coaching that was not directly tied to evaluative measures of their program. Having an objective, third-party coach separate from general program structure was novel and well-received. From a coaching standpoint, weekly coaching gave them insight into what was actually happening in the classroom to affirm and validate teachers’ experiences. It helped confront the reality of the challenges teachers were facing within the context of the classroom, in addition to the teacher-reported perspectives shared with the PLC and in subsequent surveys.

As part of the question “What did you like best about this PLC?”, 19% of respondents mentioned coaching was their favorite part of the program. One respondent stated, “Just knowing that you had someone in your corner was most definitely the key to succeeding in this PLC.” In general, coaching is offered primarily to Preschool professionals, with few opportunities for infant/toddler educators to engage in coaching outside of the evaluative format used within some participating centers. In response to the question “How could this PLC be improved?”,

6% of respondents expressed a desire for more consistently scheduled coaching sessions, as well as better coaching practices. While coaches in Year 4 met with classrooms more frequently than they did in previous years, sickness, personal reasons and program structure made coaching inconsistent for some classrooms. One respondent said she hoped for “more specific goals for each visit from coaches, structured activities for implementing things learned in PLC sessions.” In short, teachers responded well to coaching sessions and wished the visits were more frequent and consistent.

Teachers also responded well to the LENA five-week sequences and reports. This was one of the strongest coaching tools afforded by the grant. The LENA reports seemed to resonate because it was almost immediate feedback with the ability to develop actionable goals tied directly to child outcomes. Teachers were able to utilize the 14 talking tips from LENA, creating plans for where they could use new strategies during the day with the help of their coach. Outcomes were stronger for classrooms that could engage in pull-out coaching and less so for teachers who were unable to meet outside the classroom for planning and coaching visits.



Grow

One area for future growth and practice improvement involves better understanding and support for specific curriculum models. While our coaches have experience with the curriculum systems HighScope and Teaching Strategies GOLD, our goals did not focus on specific curriculum training. We directed programs to provide curriculum-specific professional development where possible; we focused our efforts on utilizing the free Cox Campus resources, as they would be universally available to all participants. Additionally, we provided general planning support and assessment insight in the PLCs and coaching, focusing on ways to help teachers make connections in the cycle of planning, implementation and assessment. However, curriculum-specific support is still a primary need for programs. Teachers had an overall understanding of the data collection process and planning developmentally appropriate experiences throughout the day. However, there is a gap between meaningful data collection and its connection to assessment. Teachers can do both independently, but often there is a lack of understanding of how to use the curriculum planning tools effectively and how to use assessment for planning purposes. This is an area identified for continued growth and support for all participating sites.

Family Engagement and Education

Based upon conversations with administrators and teachers, programs are proud of their family engagement. All sites are highly rated with the state of Ohio's star rating (now medal rating) systems and share positive experiences with planning and hosting family events. Each year, we planned separate events funded by the grant, providing resources, toys and books to each family.

Glow

Throughout the grant period, our grant staff aimed to support programs in hosting teacher-supported literacy-focused events with families. We hosted a book-in-a-box night, where families joined a book reading and received books and early literacy resources. We also hosted an event at the local children's museum called Bedtime Stories at the Boonshoft. Families reported that they "enjoyed having the opportunity to have my children in an environment surrounded by teachers from so many surrounding care centers! It was fantastic to see them engage with all of the children." Each time we hosted an event, we provided snacks, books, toys and resources to support learning at home. Community partners such as the public library

system and local resource and referral agencies provided information as well.

Grow

While engagement with families was positive overall, the education of families is an identified area of growth. In response to the question "How could this PLC be improved?", 8% of respondents outlined the need for more family engagement resources and better turnout. One respondent stated that she would have liked to see "more family engagement to track progress at home and continuous practice for the kids at home," while another stated she wished to see us "bring back the families' night out at the Boonshoft museum." While we hosted one family engagement event in Year 3 at a local children's museum, attendance was low due to the time; Bedtime Stories at the Boonshoft was from 6 to 8 p.m., when many children are going to sleep for the night.

Teachers have begun the initial steps toward improving family engagement and education in a variety of ways. Our PLC facilitators worked with teachers to create family resources and help families better understand their children's development through LENA family-focused reports. These reports in particular helped families better understand how the grant was supporting the children's overall language and literacy development. That said, teachers could use more support in having crucial conversations with families. This would include helping families navigate the resources provided about reading books at home, supporting play-based strategies outside of school and talking to pediatricians about any concerns they have about their children's growth and development. While teachers meet with families during conferences, they would benefit from additional support in helping families with children demonstrating developmental delays and connecting them to available resources.

"I've gone over the child's developmental snapshots with the parents to form a goal for their child. I went over the talking tips with the parents so they can be on the same page, which would allow us to work together to succeed in the child's language development skills."

— Early Head Start Educator

CONFOUNDING VARIABLES

Over the four years, many complicating factors arose that impacted the implementation of the partnership literacy plan. These were highlighted annually in the progress monitoring surveys required for grant compliance and are expanded upon below.

Ongoing Enrollment

A significantly complicating factor in monitoring overall outcomes and growth across the classroom is the nature of early childhood and ongoing enrollment. This was exacerbated by the pandemic, meaning that child enrollment was highly variable, and turnover was higher than expected. This means that at any given point of time, children included in one data report might not be included in a subsequent report. Unlike with older age groups, children in the early childhood sector can enroll at any time, based on program availability. Children enter the programs continuously throughout the year, especially in the infant classrooms, with children beginning as young as 6 weeks old. Additionally, children frequently move to new classrooms based on program structure; most of the participating sites have children transition from an infant classroom to a toddler classroom when they approach 12 to 18 months. This means older children move from the infant room to the toddler room, significantly changing the average age of children and the overall developmental average on typical class aggregated data related to curriculum assessment.

COVID-19 Pandemic

When the grant award was initially announced, the pandemic had yet to begin. As a result, some of our initial budgeting plans were modified to include technology to support program implementation. Coaching remained limited and virtual for most of the 2020-21 academic year, with limited access beginning in 2021-22. The first in-person Professional Learning Community was held at the final PLC in May 2022, whereas previous sessions were held over Zoom video conferencing. In the remaining years of the pandemic, virtual options remained in place to ensure attendance and participation during outbreaks, especially in the winter months. While this had some logistical impacts on planning content, the biggest impact was on coaching. Coaching hours, especially general coaching, increased in Years 3 and 4 as a result.

Differences in hierarchical structure for sites

One of the benefits as well as disadvantages of this grant program was the inclusion of a wide variety of types of sites: Early Head Start, Head Start-affiliated programs, independently owned and operated centers, multisite tuition-based programs, a home-based center, a public Preschool program and a demonstration school. In the pilot year, the early conversations about data collection revealed that three different types of curriculum-based assessments and models were used at the sites, making data collection and curricular support challenging. Classroom structures varied, with some programs having infant rooms separated from toddler rooms and some programs hosting the full range of 6 weeks to 36 months within one classroom. Continuous care models and how children transition between classrooms also factored into aggregate data analysis, highlighted in the section above on ongoing enrollment challenges.

Classroom staffing and staff support structures varied as well. Some sites had their own coaches and evaluators, while others had one lead teacher and inconsistent assistant teachers within the classroom. The goal was to be inclusive of all staff working consistently within the classrooms; this impacted who was involved in the PLC each month, who received coaching and who was evaluated using the CLASS tool. For these reasons, we determined an independent evaluator and contracted coaches specifically supporting the Comprehensive Literacy State Development grant program were needed to ensure fidelity to the program, reduce bias in evaluations and build relationships with teachers that were supportive of general practices connected to the program.

Classroom Enrollment Size and Ratio

An additional factor to consider, especially with the 18-to-36-month age group, is the number of children enrolled in a classroom. When looking at the quantity of conversational turns specifically, it is important to note the impact of proximity on conversational turns. This means that, at times, children are engaging with peers more than with adults. This is not currently captured in our data regarding conversational turns, as it looks primarily at the interactions between adult and child voices within a given five-second time frame. The greater the number of children, the more challenging it is for adult caregivers to meet the benchmark of 40 conversational turns per hour with each child.



APPENDICES

Demographics and Background

The demographics and educational background of participants spanned the professional spectrum from new teachers to those nearing retirement after decades in the field. For the purpose of this discussion, participants from the years 2022 to 2024 are included in the table below.

Teacher Education Level and Tenure

Teacher Tenure in the field of early childhood education

**For those still involved with the grant at its conclusion*

High school diploma	(CDA) Child Development Associate Credential	Associate degree	Bachelor's degree	Master's degree
5	7	6	11	4

Teacher Tenure in the field of early childhood education

**For those still involved with the grant at its conclusion*

Less than 1 year	1-2 years	3-5 years	6-7 years	8-10 years	10+ years	15+ years	20+ years
1	2	5	5	6	4	2	7

Child Demographics Across Sites, 2023-24

	Caucasian/White	Black/African American	Asian	Hispanic
Bombeck Family Learning Center: 116 children enrolled (infants-Preschool)	101	22	10	0
Dayton Christian Center: 40 children enrolled (infants-Preschool)	8	30	0	2
Kettering Early Childhood Education Center 165 children enrolled (infants-Preschool)	125	25	7	8
Mini University/Hope Center for Families: 117 children enrolled (infants-Preschool)	15	102	3	1
MVDCDC Kings Highway: 133 children enrolled (infants-Preschool)	5	122	2	2
Rainbow Years: 157 total enrolled children all age groups (toddler-school age)	35	7	7	12
Categorical totals	289	308	29	25

Site Overview Table

Our partner sites spanned a wide variety of types of programs, each one representing a different source of funding and program structure, as illustrated in the table below.

Site Name	Type of Site	Years Participating	Teachers Participating	Total Children Impacted	% Children eligible for free/reduced lunch
ABC Child Development Center	Home-Based	2020-21	1	1	
Bombeck Family Learning Center	Demonstration School, University-Affiliated	2022-24	11	57	
Dayton Christian Center	Head Start Partner	2020-24	7	38	57.5%
Kettering Early Childhood Education Center	Public School	2022-24	6	32	23%
Mini University/Hope Center for Families	Multisite	2020-24	13	100	75%
MVCDC Kings Highway	Early Head Start	2020-24	12	77	100%
Rainbow Years	Independently Owned-Operated	2020-24	4	37	77%
Wenzler Preschool and Learning Center	Independently Owned-Operated	2021-22	3	8	

Scaled Four-Year Approach

Our intention in designing the program was to increase support as well as participants gradually over four years. Year 1 included participating site administrators to ensure understanding of the program, raise any concerns about the process, ask questions and ensure cohesiveness in program implementation. More details about yearly processes are listed below.

Year 1 Exploring Feasibility

2020 - 2021

Mentoring | Training
Pilot Group

- Confirm participating sites and identify pilot classrooms and teaching teams.
- Mentor administrators and teacher leaders through identifying virtual supports; providing training, virtual coaching sessions.
- Establish Professional Learning Community (PLC) goals and program plan.
- Train the trainers for Classroom Assessment Scoring System (CLASS); Language Environment Analysis (LENA); relevant literacy-specific training.
- Collaborate with subgrant coordinator and literacy specialists to design the first two years of the program.
- Review the needs of programs and provide summer support for programs.

Year 2 Building Capacity

2021 - 2022

Peer mentoring | Training New Classrooms
Review Program Fit for Sites

- Establish peer mentor relationships for sites with multiple participating classrooms.
- Train one additional classroom per site; add infant classrooms to the group of existing classroom participants (toddlers).
- Expand mentoring; provide virtual support through coaching, ongoing training for coaches; conduct virtual CLASS assessments as needed.
- Continue monthly PLC sessions, focusing on early literacy practices and adapting to the needs of participants.
- Host family engagement event at the conclusion of the year and work with interns to create resources for the event.
- Collaborate more closely with coaches to take over PLC implementation.
- Review program fit for participating sites and recruit new sites as needed.
- Continue implementation of CLASS and LENA.

Year 3 Expansion

2022 - 2023

Reviewing existing practices
Refining Programs | Strategies for Fidelity

- Confirm new participating sites and expand program supports to remaining classrooms at multiroom sites; conduct onboarding for new staff.
- Refine practices in the classroom; reflect on PLC content to ensure relevancy.
- Continue implementation of CLASS and LENA; consistently gather data for the year (CLASS at beginning and end of the year; two five-week LENA sequences in Fall and Spring).
- Support the collection of children's assessment using curriculum-based assessments as well as Ages and Stages Questionnaires and Developmental Snapshot.
- Increase family support and outreach, hosting a family literacy event at the Boonshoft Museum of Discovery.

Year 4 Implementation and Sustainability

2024-2025

Refining Skills and Programming | Targeted Data Collection | Establishing Sustainability Plans

- Review local literacy plan to ensure sustainability during Year 4 and beyond.
- Continue implementation of existing data collection: CLASS, LENA, ASQs and Developmental Snapshot, as well as individual site curriculum-based assessments.
- Refine PLC content to focus on developmentally appropriate practice, play-based strategies and ways to integrate emergent language and literacy goals.
- Increase coaching to include general coaching as well as job-embedded coaching during two five-week LENA sequences.
- Increase family support and outreach regarding literacy and language development by providing early literacy play kits.
- Create a literacy event toolkit with activity ideas, resources and handouts for individual sites centered on six classic children's books, in collaboration with University of Dayton interns.
- Host a free book fair, where all enrolled families at sites receive a \$15 voucher per enrolled child.

Data Reports

Addressing High Quality Scores and High Conversational Turns

One indicator we wanted to investigate was the correlation between high quality scores from CLASS and high conversational turns documented by LENA. Our hypothesis was that there would be a correlation between high quality and high number of adult vocalizations, increasing over time.

We were also looking to see if there was a mismatch between CLASS scores and adult vocalizations. High quality does not necessarily mean the teachers are talking in ways that support responsive *interactions*, even though they are deemed quality practices – self-talk, for example, would involve teachers narrating what they are doing but not necessarily in a way that promotes conversations. On the flip side, high adult vocalizations do not necessarily indicate *high-quality interactions*; directive speech toward children could be in a command voice that is not developmentally appropriate or is deemed harsh or could be an indication of teachers talking to other adults instead of the children. With our hypothesis, we aimed to explore whether teachers, after receiving LENA training and CLASS feedback, would increase their adult vocalizations as well as their conversational turns.

With small sample sizes, we expected there to be few statistically significant correlations in the data. However, we noted a few statistically significant findings:

Infant Classrooms

- The higher the teacher sensitivity score in the Fall and Spring, the greater the adult vocalizations in the Spring LENA sequence.
- The higher the relational climate score in the Fall, the greater the adult vocalizations in the Spring LENA sequence.
- The higher the facilitated exploration score in the Fall, the greater the adult vocalizations in the Spring LENA sequence.
- The higher the early language support score in the Fall, the greater the adult vocalizations in the Spring LENA sequence.

Toddler Classrooms

- The higher the behavior guidance score in Fall 2023, the greater the number of conversational turns and adult vocalizations in the Spring LENA sequence for toddlers.
- The higher the language modeling scores in Fall 2023, the greater the adult vocalizations in the Spring LENA sequence.

Combined data sets for infant and toddler classrooms

- The higher the teacher sensitivity score in the Fall, the greater the adult vocalizations in the Spring LENA sequence.

Analysis

What we can glean from the data is that there was a statistically significant increase in correlation between CLASS scores and adult vocalizations in the Spring. While this is correlation and not causation, it is a statistically significant finding worth investigating in future studies.

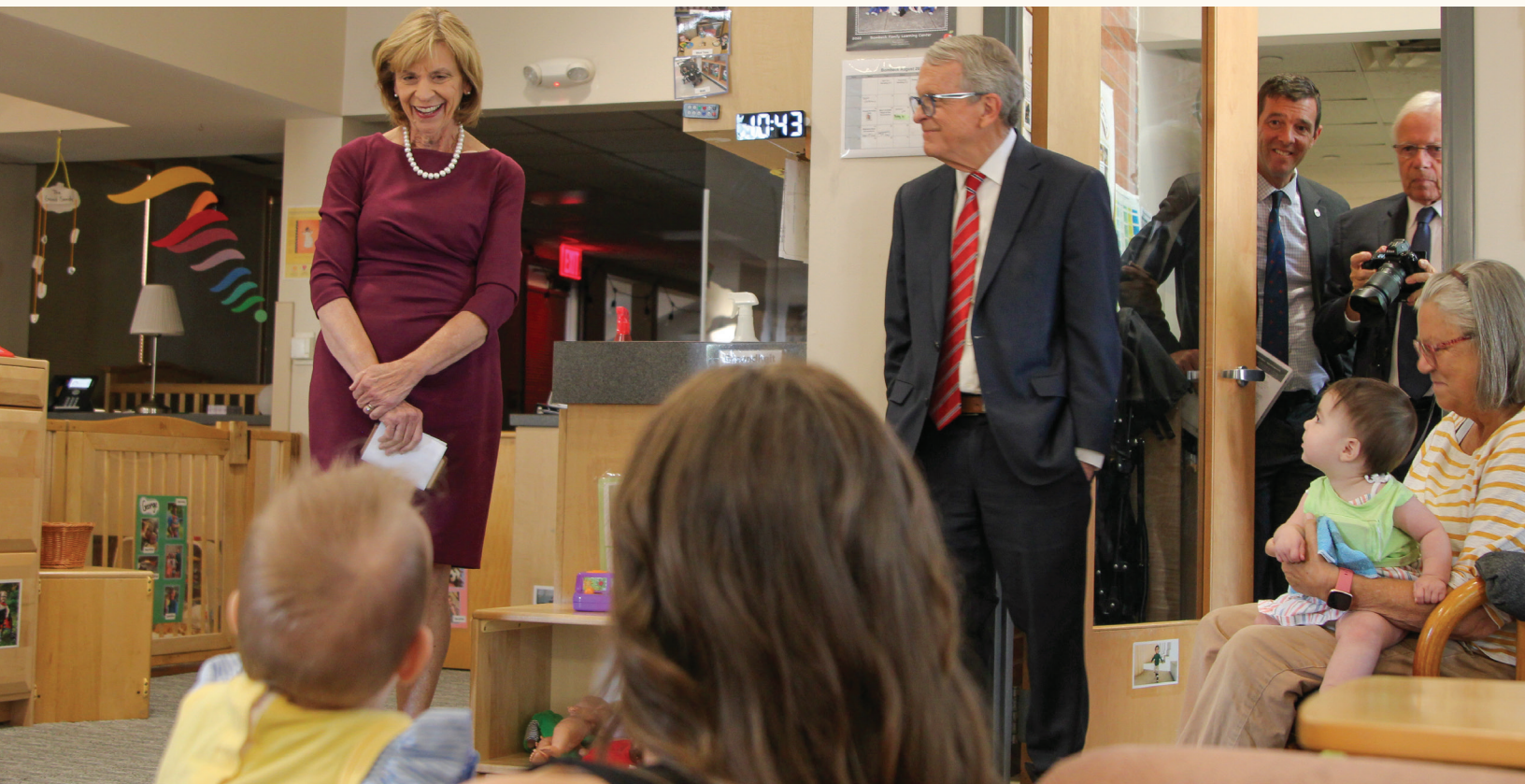
"What we can glean from the data is that there was a statistically significant increase in correlation between CLASS scores and adult vocalizations in the Spring. While this is correlation and not causation, it is a statistically significant finding worth investigating in future studies."

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We surveyed teachers about behavioral changes during the course of the nine-month program period to identify whether teachers utilized behaviors aligned with CLASS and LENA. Using a Likert-type scale, teachers responded to whether they never, rarely, sometimes, often or consistently used specific behaviors addressed during coaching and in the PLC training sessions. Our response rate for the PLC was around 74%, and no direct incentive was provided for responding to the survey. Overall, of the 26 out of 35 teachers who responded, 38% found the training to be very helpful, with 58% stating the PLC was extremely helpful in their classroom practice.

Overall, participants rated themselves as often or consistently engaging in behaviors such as parallel talk, communication support and repetition and extension to support early language and language modeling in routines, play experiences and free choice experiences.

	During	Sometimes	Often	Consistently
Parallel Talk: Narrating the children's actions or things that are happening around them	Play Experiences	4%	37%	59%
Communication Support: Encouraging children to vocalize by providing words and language for children to use	Routine	0%	48%	52%
	Play Experiences	7%	37%	56%
Repetition and Extension: Repeating and extending children's communication attempts and language	Play Experiences	4%	41%	56%
Joining in Experiences: Joining in children's play to provide intentional opportunities and guidance for learning and development	When teachers see children exploring books	4%	44%	52%



Questions

What was the most important change or improvement in your classroom practice that resulted from this PLC?

- 73% of respondents discussed the improvement in serve-and-return interactions and a general awareness of children's language development. One respondent stated the most important change was "making sure that my interactions with the children were more intentional and focusing on language conversations and not just talking to the children."
- 8% discussed the importance of learning to use books with infants and toddlers more effectively. One respondent stated that a key learning moment was "pausing to give babies/older babies time to form a response, relating something from a book to something in the classroom or outside."
- 19% discussed play as a key learning outcome from the PLC. Several PLC sessions focused on schema play as a way to support the learning, development and engagement of children in the classroom. One respondent stated that their "aha" moment was "thinking outside the box when it comes to playtime. We learned that we do not need your typical toys for kids to play with. They will use their imaginations with whatever you give them to play with, a lot of times coming up with a way to play that the adults may not have thought of."

What did you like best about this PLC?

- 23% of respondents mentioned that schema-based play sessions were the most meaningful and impactful for their classroom practice. Our PLC sessions focusing on schema play and "invitations to play" were hands-on workshops run by the instructors, providing a framework for educators to explore with real, open-ended materials and purchase materials used within the workshop.
- 19% of respondents mentioned that coaching was their favorite part of the program. One respondent stated, "Just knowing that you had someone in your corner was most definitely the key to succeeding in this PLC." In general, coaching is offered primarily to Preschool professionals, with few opportunities for infant/toddler educators to engage in coaching outside of the evaluative format used within some participating centers.
- 19% of respondents discussed the importance of collaboration within their center, across centers and with their coaches. One respondent mentioned how she "liked the engagement and the togetherness" and that "meeting new educators that share the same or similar experiences in the classroom as myself" was the best part of the PLC.



- 19% of respondents shared that generally learning about child development, routines and intentionality in communication with children was their favorite part. One respondent stated that the PLC “affirmed what I do. It helped me grow in my skills, and it provided me with a springboard to help the teachers in my classroom grow.”
- 15% of respondents stated that learning about language development and communication in general was most valuable. One respondent stated, “I liked the relatability between what was being taught and what could be put into practice or extended into the classroom. Seeing the data each week from the [LENA reports] recorders was very helpful.”

How could this PLC be improved?

- 42% of respondents stated that no change was needed for the PLC or program. A few responses mentioned wanting to continue the program and to “bring more educators into our circle and share our knowledge about how important the first five years are.” Another respondent stated she would like for Preschool Promise to “keep it going if you get true funding.”
- 6% of respondents expressed a desire for better coaching. While coaches in Year 4 met with classrooms more frequently than they did in previous years, sickness, personal reasons and program structure made coaching inconsistent for some classrooms. One respondent said she hoped for “more specific goals for each visit from coaches, structured activities for implementing things learned in PLC sessions.”
- 4% of respondents discussed more PLC session-specific changes, such as shortening meetings and offering virtual sessions. One respondent stated she would like to see “more Zoom meetings instead of in person. It’s hard to go straight from working a nine-hour day to a two-hour training, then driving another 30 minutes home.”
- 8% of respondents outlined the need for more family engagement resources and better turnout. One respondent stated she would have liked to see “more family engagement to track progress at home and continuous practice for the kids at home,” while another stated she wished to see us “bring back the families’ night out at the Boonshoft museum.” While we hosted one family engagement event in Year 3 at a local children’s museum, attendance was low due to the time – Bedtime Stories at the Boonshoft was from 6 to 8 p.m., when many children are going to sleep for the night.

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