

Results & Lessons Learned from
the First Year of LENA Grow™
as part of ELC Escambia's
"Grow with Me" Initiative

INTRODUCTION

In October 2016, the Early Learning Coalition of Escambia County (ELCEC) and LENA commenced a partnership to boost high-quality interactions in child care settings leveraging LENA’s unique “talk pedometer” technology. LENA technology was integrated into ELCEC’s “Grow With Me” professional development initiative launched earlier that same year. The overarching goal was to apply and adapt the LENA Grow program in infant and toddler classrooms, supporting a strengths-based, data-driven approach to practitioner (educator) skill building and improvement of child outcomes. This case study report summarizes the results and lessons learned from the first year of LENA Grow operations in Escambia County.

ELC ESCAMBIA COUNTY AND THE “GROW WITH ME” INITIATIVE

ELCEC supports the children and families of greater Pensacola and Escambia County, Florida, with a mission to lay the foundation of lifetime success by maximizing each child’s potential, preparing children to enter school ready to learn, and helping families achieve economic self-sufficiency.



In 2016, ELCEC’s “Grow With Me” initiative was launched to build children’s vocabulary and emergent literacy skills in child care centers across the county. It is an infant/toddler quality initiative that combines assessments, coaching, and professional development to improve adult-child interactions. Knowing that many children spend up to 60 percent of their waking hours in a child care setting and that historically some of the least experienced teachers work in infant and toddler rooms,

ELCEC recognized that more resources needed to be focused on these classrooms.

The primary assessment identified for the initiative was CLASS® (Classroom Assessment Scoring System). CLASS is an observation tool used to gauge teacher effectiveness with a focus on adult-child interactions. It measures the emotional, social, organizational, and instructional supports educators provide that contribute to social, developmental, and academic achievement. The tool is used to assess interactions and provide feedback to educators for professional development, performance evaluation, or research.

In order to provide ongoing insights and uncover opportunities to weave quality interactions throughout the day, ELCEC reached out to LENA to learn how to integrate their technology into the “Grow With Me” initiative. At that time, LENA Grow was in the early stages of development, and the two organizations

determined the best approach was a two-phased pilot commencing in the fall of 2016. Over the course of the year, ELCEC worked closely with LENA staff to provide feedback and support for the refinement of the LENA Grow reports, coaching materials, and the coaching framework.

HOW LENA GROW WORKS



In the LENA Grow program, children wear a small device in the pocket of a vest for one full day each week. The LENA device captures the audio environment the children experience over the course of the day. The educator (or other trained staff member) turns the device on when the children arrive in the morning, presses record, puts the device into the vest, and puts the vest on the children. The children then go about their day. At the end of their day, the vest is taken off and stowed, and the device

automatically turns itself off. The resulting audio is later uploaded and processed into data including number of adult words and conversational turns children experience throughout the course of one “LENA Day.” The processed data are turned into a variety of feedback reports provided to educators. LENA technology is designed to ensure complete privacy for the adults and children who use it: it does not report the meanings of words and the audio cannot be played back and is deleted after processing. No one can ever listen to it.

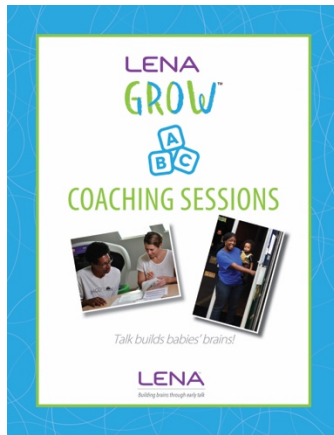
LENA feedback for educators emphasizes conversational turns, a strong measure of interactive talk. Hourly breakouts indicate which times during the day and which activities were most effective at increasing talk. At the individual level, data builds a record of each child’s language development and use over time and helps to identify children who may benefit from more individual attention.

Educators meet with a coach weekly for 15-20 minutes to review and reflect on feedback reports that show the talk environment in the classroom and to discuss new strategies to increase the amount of conversation. The coach and educator work together to set one to two goals for the educator to focus on between coaching sessions and during their next LENA Day.

LENA GROW PILOT TRAINING AND SUPPORT FOR ELCEC STAFF AND EDUCATORS

In November 2016, LENA staff visited Pensacola, Florida, to provide a 30-minute, on-site training for six educators from three classrooms, serving 20 children at two different centers in the area. The interactive training session gave educators an opportunity to become familiar with LENA technology and have hands-on practice using LENA devices and vests. Educators also had an opportunity to ask questions and discuss the program components involved in the pilot.

In parallel, the ELCEC coaches received training on how to upload data from the devices, access information in LENA Online (LENA’s cloud-based program management portal), and review and interpret report data. Coaches and ELCEC leadership then met with LENA during weekly phone calls to discuss program implementation milestones, ask questions, and debrief on how the pilot was progressing.



To support ELCEC coaches, LENA initially provided six written coaching sessions. As the pilot progressed, these were expanded to 12, and they include guidance on how to talk about LENA reports with educators, how to incorporate specialized strategies to increase talk in the classroom, and how to add a language focus to daily care routines in early childhood. Daily care topics were focused on specific events throughout the day, like clothing/diaper changes, dialogic reading, songs and rhymes, and indoor and outdoor play. Coaches also received the first versions of LENA Room Level Summary and Room Detail reports and copies of LENA’s 14 Talking Tips. The Talking Tips are evidence-based techniques for increasing early talk and incorporating quality interactions into daily routines.¹

The first version of the LENA Grow coaching guide was designed to be light, flexible, and easily integrated into other professional development content as a 15-20-minute add-on to ongoing coaching efforts. For ELCEC, the content integrated nicely to support CLASS observation coaching and feedback.

GOALS FOR YEAR 1

ELCEC’s aim for the first year was to complete 18 to 24 weeks of coaching and LENA recordings with each classroom from November 2016 through May 2017. The first three classrooms began their recordings in November 2016 and served as learning sites for ELCEC. The program was then expanded in January 2018 to serve 14 classrooms across six centers and a total of 143 children by the end of year 1. When the program expanded, ELCEC coaches led the training for educators and facilitated conversations with local center directors and staff to generate buy-in and support.

Educators completed one LENA Day each week with coaching twice weekly for the first 4-6 weeks and then weekly coaching and feedback from ELCEC staff for the remaining 18 weeks. Feedback and coaching were based on LENA reports, LENA coaching guidance, the 14 Talking Tips, and classroom observations.

¹ For more information on the evidence base behind the 14 Talking Tips, refer to “Right from Birth: Eliminating the Talk Gap in Young Children” by Steven F. Warren, PhD, available at https://www.lena.org/wp-content/uploads/pdf/research/RightFromBirth_Warren.pdf.

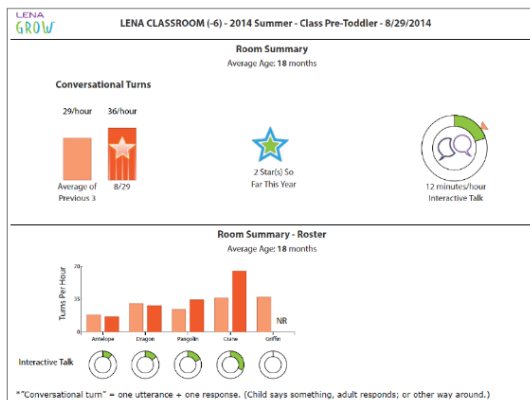
Additional professional development for educators incorporated over 20 hours of content focused on social emotional support, curriculum implementation, and developmentally-appropriate behaviors.

In addition to the weekly LENA feedback, classrooms also completed three CLASS observations: one in October before the program started, a mid-point observation in January, and a final observation in May. CLASS observations and scores also informed coaching session content to support educators’ professional development. Educators were eligible to receive a stipend for performance based on their CLASS scores.

COACHING AND MOTIVATION THROUGH THE FEEDBACK REPORTS

Educators received data-driven feedback from three LENA reports: The Room Summary Report, the Room Detail Report, and the Individual Child Report. When educators demonstrated improvement on their reports, they received star stickers to publicly display in their classrooms on rewards charts. These charts also included the 14 Talking Tips and provided an opportunity to build parent awareness and engagement, along with encouragement to try the tips at home.

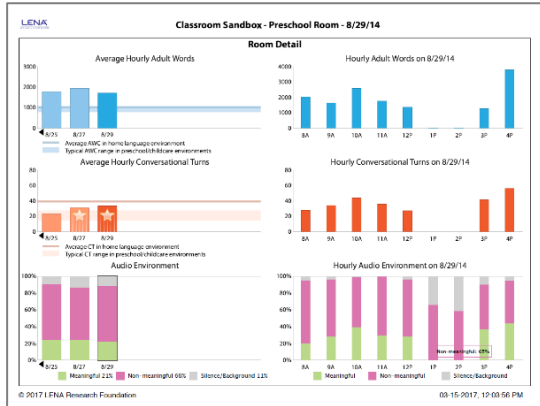
ROOM SUMMARY REPORT



The Room Summary Report provided educators with feedback on the average number of conversational turns the children in their classroom experienced during the most recent LENA Day. The report also identified the portion of the day that was interactive – initial versions of the report included the average number of minutes in an hour that an educator spent engaging in conversational turns with children. Later versions evolved into reporting the average number of conversational turns per hour children experienced.

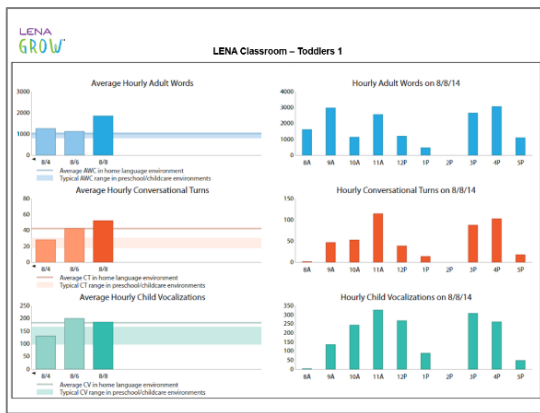
Educators also received data and feedback on how much they were engaging in conversational turns with each child in their classroom through a roster of individual child data. This roster report was sorted from the child who received the least to most interactive talk.

ROOM DETAIL REPORT



The Room Detail Report provided a deeper level of insight into the talk environment. It displays daily and hourly data on the average number of adult words and conversational turns in the room, as well as feedback on the makeup of the audio environment in the classroom (e.g., amount of adult speech, noise, and silence). From this report, educators could identify hours when they were talking more or less and identify potential gaps when there could have been more interaction with the children.

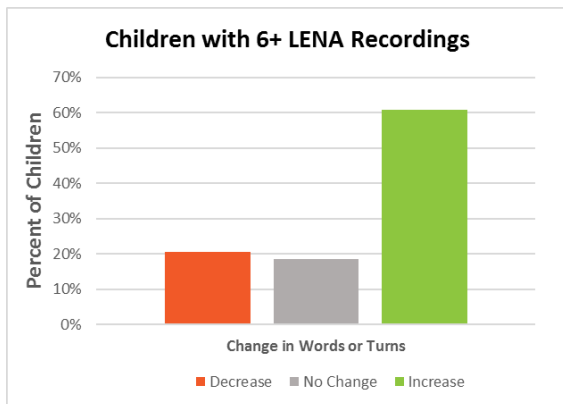
INDIVIDUAL CHILD REPORT



The Individual Child Report provided educators with daily and hourly data on the number of adult words and conversational turns each child experienced, as well as daily and hourly data on how much the child was vocalizing. By looking at child vocalizations, educators could identify how many opportunities they may have had to engage with the child during the day or a given hour and whether the child was initiating language.

PILOT FINDINGS – PROMISING YEAR 1 RESULTS

In the first three pilot classrooms that began in November 2016, results showed that the adults in the room increased how much they were speaking with children by 54 percent and the children were responding back 88 percent more than before the program, on average.

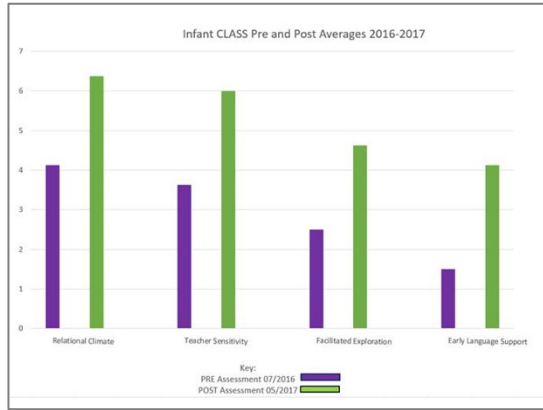


Pilot results across all 14 classrooms found that 61 percent of children increased in either the number of adult words or conversational turns, increasing the overall amount of interactive talk children experienced in the daily classroom environment.

An analysis of the room environments also identified complications in the quantitative data due to several factors, including daily variations in child attendance and enrollment, frequent changes or turnover among

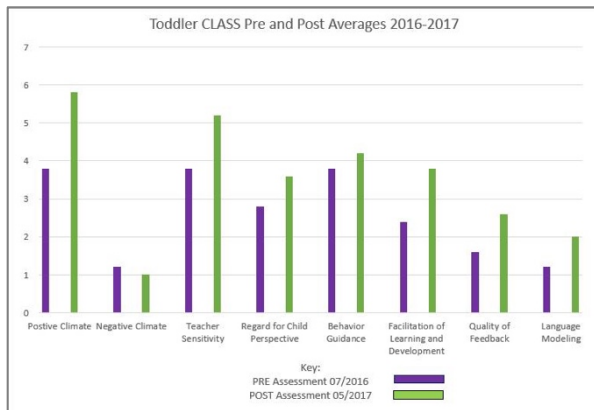
educators in the room, and inconsistent support and leadership from center directors.

Results from CLASS observations found elevations in scores from pre- to post-assessments for both infant and toddler classrooms. Each classroom can score up to 7 points for each domain of the assessment. The infant assessment reviews four



key domains: Relational Climate, Teacher Sensitivity, Facilitated Exploration, and Early Language Support. The toddler assessment reviews eight domains: Positive Climate, Negative Climate, Teacher Sensitivity, Regard for Child Perspective, Behavior Guidance, Facilitation of Learning and Development, Quality of Feedback, and Language Modeling. Throughout the pilot, classrooms completed CLASS observations at three time periods –the first in July, prior to starting LENA Grow, a mid-point observation in January, and a final observation in May.

Results pre/post found that five infant classrooms had an average initial Early Language Support score of 1.5. At their final CLASS observation, in May 2017, the average Early Language Support Score increased to 4.2, an average increase of 2.7 points.



Toddler classrooms found increases in Language Modeling and Positive Climate. For Language Modeling, five classrooms had an average initial Language Modeling score of 1.2 out of 7 points and increased to an average of 2 points by May 2017. The average initial Positive Climate Score was 3.8 points out of 7 and increased to 5.8 out of 7, an average increase of 2 points.

In addition to formal measurement tools, educators also provided qualitative feedback on their

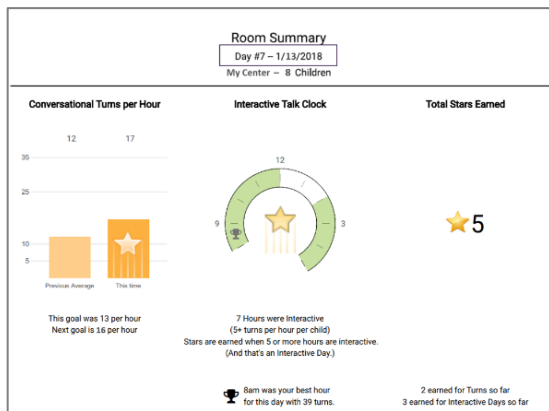
experiences. Vera Dunson is an educator with decades of experience who has spent her career caring for children. She currently works in an infant room at one of the pilot centers and was very encouraged by the results she saw. “I know the children are learning more quickly because of my active participation,” she said. With one child in her care, she noted, “He is actually speaking words now, and it makes me excited to talk to him more! He can say my name!”

LESSONS LEARNED AND LOOKING AHEAD TO YEAR 2

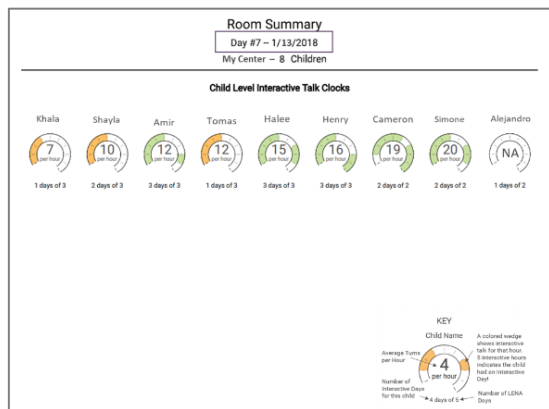
From ELCEC’s standpoint, adding LENA Grow turned out to be quite straightforward. From the beginning, ELCEC made very intentional efforts not to overburden center directors and educators with logistics associated with the equipment. Staff from ELCEC had observed that many children experienced very low levels of interactive talk, but LENA shed light on this and helped identify opportunities during the day to interact more (e.g., mealtimes and after nap time in the afternoon).

There were also spillover benefits beyond improved language in the classroom. The combination of LENA and strengths-based coaching enhanced other aspects of education such as: realistic expectations, creating meaningful experiences, the importance of process art versus close-ended art, and an awareness of messy play. In addition, teachers’ confidence and interactions with children improved through positive relationships

Goal setting with educators had a strong impact – the technology is sensitive to where educators begin and meets them where they are. The goals are adaptive and encouraging coaches to celebrate small wins provided continuous motivation through an incremental (and realistic) approach to improvement.



During the pilot, it became clear that there were elements of the reports that could be clarified to help educators better understand their own progress. The Room Summary report was updated to reflect educator feedback and rolled out in early 2018. Key changes included the addition of a Room Level interactive talk clock for educators to identify which hours of the day were most interactive, updated child level clocks to reflect which children had the most interactive days in the room, and a greater emphasis on earning stars and rewarding progress.



As year 2 begins, the coaching model has also been modified to fit into 12 weeks. Although overall results were positive, data from the first year indicated the 18- to 24-week cycle led to some educators losing momentum and interest in the program. A shorter coaching model will allow more focused and intensive intervention that will ultimately reach more centers and more children throughout the course of the school year (August to May). Educators will receive weekly coaching and feedback

from their reports, and ELCEC Coaches will add three longer Communities of Practice to bring educators together from all participating centers to discuss their learnings and engage in more focused content and professional development.

An additional goal for the second year will be to test and evaluate the impact of performance-based incentives for teachers. When teachers earn stars, they will be eligible for a \$25 Target gift card and other prizes.

The ELCEC coaches will also work more closely with center directors to initiate greater buy-in and support for the program. For example, coaches will meet with directors individually to discuss data and program progress.

Finally, in addition to using LENA Grow and CLASS, ELCEC plans to integrate the Nemours Infant/Toddler Kits to support literacy and early language development.

CONCLUSION

"The Lena Grow Program has been a learning tool for the children and teachers; moreover, it has been a great benefit to both. We have children who have begun to talk more – one child plays with his classmates and expresses himself, and his parents thanked us because their son is 'talking too much.' Children are distinguishing between the different emotions and verbalizing what they want. The teachers have learned to repeat what the children say as well as extend their language. The success story is so long that it'll take hours to talk about the LENA Grow Program. I really appreciate the Early Learning Coalition for introducing the program to us and look forward to years to come working with the program. Thank you, guys!"

~ Jennifer Jones, Director at Restoring Hands

The first year of LENA Grow in Escambia County has been quite successful and has laid the foundation for an even more successful second year. LENA Grow highlighted areas of strength and opportunities for improvement for participating educators. It also elicited important "a ha's" and encouraged meaningful coaching opportunities. Along the way, the collaboration between LENA and ELCEC was open and effective, providing valuable insights to support further enhancements to both Grow With Me and LENA Grow. Looking ahead to the second year of the program, there will be ample opportunities for continued learning as the program is enhanced to achieve greater impact.