



Crosswalk with the Florida Early Learning and Developmental Standards, Birth to Kindergarten

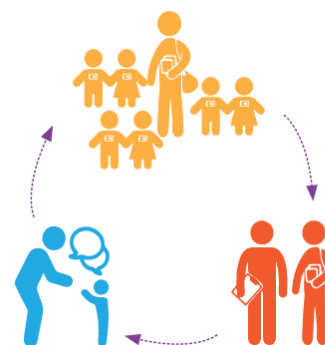
About LENA

LENA is a national nonprofit on a mission to transform children's futures through early talk technology and data-driven programs. LENA's early talk technology is the global standard for measuring early language environments, including conversational turns, back-and-forth vocal exchanges between adults and children. Visit www.LENA.org or email info@LENA.org to learn more about how LENA Grow supports early childhood teachers' professional development.

How LENA Grow Supports Florida Early Learning and Developmental Standards

[LENA Grow](http://www.LENA.org) is an evidence-based professional development program that helps teachers improve classroom language environments in early learning settings, complementing the Florida Early Learning and Developmental Standards' goals for children's early learning and development (Florida Office of Early Learning, 2017). Teachers participate in LENA Grow's five-week reflective feedback cycle. The cycle employs LENA's wearable device, data-rich feedback reports, and strengths-based coaching to measurably increase conversational turns, one of the most predictive metrics of child outcomes. Extensive peer-reviewed research has linked increased conversational turns to improvements in brain function (Romeo et al., 2018a), brain structure (Romeo et al., 2018b; Huber et al., 2023), executive functioning (Romeo et al., 2021), reading skills (Merz, 2018; Weiss et al., 2022), vocabulary acquisition (Duncan et al., 2022), emotional development (Gómez & Strasser, 2025), and even long-term cognitive outcomes such as IQ score (Gilkerson et al., 2018).

LENA Grow builds a reflective teaching practice that strengthens language development and fosters responsive relationships. Utilizing classroom and child-level data, teachers set intentional, measurable goals to increase interactive talk and support each child's developmental progress. These goals are aligned with Florida's Early Learning and Developmental Standards domains and tailored to each child's needs, supporting differentiated instruction and developmental progress. Classrooms implementing LENA Grow have shown accelerated gains in TS GOLD® (Russo, 2025; Govoni, 2025a), DECA (LENA Foundation, 2022b), and kindergarten readiness assessments (Govoni, 2025b), reinforcing the program's impact on both academic and behavioral readiness for school. Classrooms implementing LENA Grow demonstrate measurable improvements in instructional quality, as reflected in higher CLASS® scores (LENA Foundation, 2023a; 2023b). Educators also report increased job satisfaction and self-efficacy (LENA Foundation, 2023c), reinforcing the program's dual impact on both child development and teacher effectiveness. Just as the Florida Early Learning and Developmental Standards serve teachers across a wide variety of settings, LENA Grow is implemented in a variety of early learning settings throughout the U.S., including child care centers, school districts, family child care homes, and Head Start programs.



1. A LENA Day. One day per week for five weeks, children wear the LENA device to measure their teachers' interactive talk.

2. Coaching and feedback. Teachers reflect on their talk data with strengths-based guidance from an instructional coach.

3. Practice days. Teachers work towards measurable improvement on their next LENA Day.

Core Elements of LENA Grow

These elements work together to provide a cohesive, empowering professional development experience for teachers that drives meaningful and lasting increases in interaction. This change leads to more equitable language environments, accelerated language development, and increased teacher job satisfaction and self-efficacy. These elements help teachers scaffold learning and individualize instruction in the Florida Early Learning and Developmental Standards domains.

1. **Research base:** LENA Grow is rooted in over a decade of peer-reviewed research linking conversational turns to improved language, brain, and social-emotional development. More than 400 researchers and clinicians in over 40 countries have used LENA technology to study early language development (LENA Foundation, 2025).
2. **Early talk strategies:** LENA's early talk strategies, the 14 Talking Tips, are research-based techniques for increasing early talk and supporting healthy language development. Three research-based "active ingredients" power the 14 Talking Tips: creating joint attention, increasing conversational turn-taking, and then recasting (Warren, 2015). During each coaching session, teachers receive research-based materials that utilize these tips to increase interactive talk. Areas of focus include personal care, transitions, indoor play, outdoor play, mealtimes, shared reading, early math, early literacy, and songs & rhymes.
3. **LENA Room Report:** At each coaching session, teachers review the Room Report, which provides objective interaction data on overall room averages and child-specific averages. It reports the number of conversational turns in the classroom across the day. (See attachment A)
4. **LENA Child Report:** The Child Report provides a detailed view of each individual child's experience across the day, including hourly counts of interactions and child vocalizations that highlight further engagement opportunities for teachers. This report is also used to engage families in a conversation about their child's early talk experiences and language development.
5. **Impact Report:** The LENA Grow Impact Report describes LENA Grow, defines turns, explains the importance of interactive talk, and displays the program's outcome data. Outcomes reported include the total number of children, teachers, and classrooms served, teacher sentiments about the program and its impact, and the numerical change in Conversational Turns from beginning to end of the sequence, including its statistical significance.
6. **Weekly strengths-based coaching:** LENA Grow coaches provide 30-60 minutes of coaching each week. The Coach Guide supports them in bringing a strengths-based lens to the data analysis and goal setting conversation with teachers.
7. **Weekly goal setting, documentation, and practice:** At each coaching session, the teacher sets a specific and measurable goal for the coming week. The teacher then documents progress toward that goal as they practice integrating early talk strategies throughout the week, including the next LENA Day.
8. **Family Engagement:** A Family Talk handout is provided each week for teachers to send home. Teachers also spend one coaching session developing a family engagement strategy and making plans for how they will engage families in extending quality interactions into the home setting.

How LENA Grow Supports Florida Early Learning and Developmental Standards, Birth to Kindergarten

LENA Grow supports the following domains of the Florida Early Learning and Developmental Standards by improving the early talk environment for children, focusing specifically on the quantity and quality of adult-child interaction.

Early Learning and Developmental Standards		How LENA Grow Supports
Domain	Components	
I. Physical Development	A. Health and Well Being	LENA Grow supports health and well being by helping teachers embed interactive talk into care routines, promoting children’s independence and self-care skills. Teachers receive research-based strategies for engaging children during mealtimes, transitions, and personal care, turning routine moments into opportunities for connection and learning. Children who complete LENA Grow show significantly greater gains in self-help skills, as measured by LAP-BK outcomes (LENA Foundation, 2024).
II. Approaches to Learning	A. Eagerness and Curiosity	LENA Grow supports approaches to learning by equipping educators with strategies that nurture children’s curiosity, creativity, and inventiveness. Through LENA’s 14 Talking Tips, grounded in joint attention, recasting, and responsive talk, teachers foster environments where children are encouraged to explore, ask questions, and engage meaningfully with their surroundings. During coaching sessions, educators analyze classroom- and child-level data, reflect on teaching practices, and set individualized goals that support children’s cognitive engagement. Peer-reviewed research has linked early conversational experiences to brain structure (Romeo et al., 2018a), brain function (Romeo et al., 2018b), and executive functioning (Romeo et al., 2021), as well as long-term outcomes such as IQ and language skills in adolescence (Gilkerson et al., 2018), underscoring the critical role of language-rich environments in cognitive development.
	B. Persistence	
	C. Creativity and Inventiveness	
	D. Planning and Reflection	

Early Learning and Developmental Standards		How LENA Grow Supports
Domain	Components	
III. Social and Emotional Development	A. Emotional Functioning	LENA Grow supports social and emotional development by strengthening responsive teacher-child interactions that build trust, emotional security, and relationships. Child- and classroom-level data help teachers foster each child's confidence and sense of identity through consistent, individualized interactions. Teachers receive research-based resources that support recognizing and responding to children's emotional cues, with practical strategies for engaging young children during potentially stressful moments such as personal care routines and transitions. As children experience more responsive interactions, they gain confidence in expressing their thoughts and emotions, which fosters prosocial behaviors like empathy and cooperation. Peer-reviewed research has established a causal link between increased conversational turns and improved emotional development in the first three years of life (Gómez & Strasser, 2021). Additionally, participation in LENA Grow has been associated with improved DECA (LENA Foundation, 2022b) and TS GOLD® (Russo, 2025) scores, indicating enhanced resilience and emotional development.
	B. Managing Emotions	
	C. Building and Maintaining Relationships with Adults and Peers	
	D. Sense of Identity and Belonging	
IV. Language and Literacy	A. Listening and Understanding	LENA Grow supports language development by equipping teachers with strategies that strengthen interactive talk with each child and build communication skills. Rooted in the active ingredients of joint attention, conversational turn-taking, and recasting (Warren, 2015), LENA's 14 Talking Tips provide teachers with practical, research-based strategies to foster rich language experiences. Children in LENA Grow classrooms have shown increases in TS GOLD® language scores (Dynia, 2022; Heilmann & Moyle, 2022; Govoni, 2025a; Russo, 2025) and LENA Developmental Snapshot scores (LENA Foundation, 2022a). LENA Grow supports early literacy by emphasizing oral language development, a foundational skill that underpins emergent reading. Teachers receive research-based resources that provide strategies for increasing interactive talk, with a focus on shared reading, early literacy, and songs & rhymes. Supported by strength-based coaching, teachers review classroom and child-level data, set measurable goals, and practice new strategies, enhancing teachers' ability to scaffold children's literacy skills. Peer-reviewed research has linked increased conversational turns to stronger reading skills (Merz, 2018; Weiss et al., 2022) and higher vocabulary scores (Duncan et al., 2021; 2022). Children in LENA Grow classrooms have demonstrated accelerated growth in the TS GOLD® literacy area (Dynia, 2022; Heilmann & Moyle, 2022) and improved performance on kindergarten readiness assessments (Govoni, 2025b).
	B. Speaking	
	C. Vocabulary	
	D. Sentences and Structure	
	E. Conversation	
	F. Emergent Reading	

Early Learning and Developmental Standards		How LENA Grow Supports
Domain	Components	
V. Mathematical Thinking Domain	A. Number Sense	LENA Grow supports mathematics by helping teachers embed math talk into everyday routines and interactions. Through strengths-based coaching and data-informed goal setting, educators practice strategies that promote early math concepts such as number sense, patterns, and spatial relations. Research-based resources guide teachers in increasing interactive talk during indoor and outdoor play, mealtimes, and transitions, creating meaningful opportunities to build children's mathematical understanding throughout the day.
	B. Numbers and Operations	
	C. Patterns	
	D. Geometry	
	E. Spatial Relations	
	F. Measurement and Data	
VIII. Creative Expression Through the Arts	B. Music	LENA Grow supports creative expression by encouraging rich, interactive talk that nurtures children's imagination and self-expression in music, movement, and creative play. Teachers receive practical strategies to spark creative thinking during songs and rhymes and indoor and outdoor play. These responsive interactions help children develop confidence in expressing ideas and engaging with the world in creative and meaningful ways.
	C. Creative Movement	
	D. Imaginative and Creative Play	

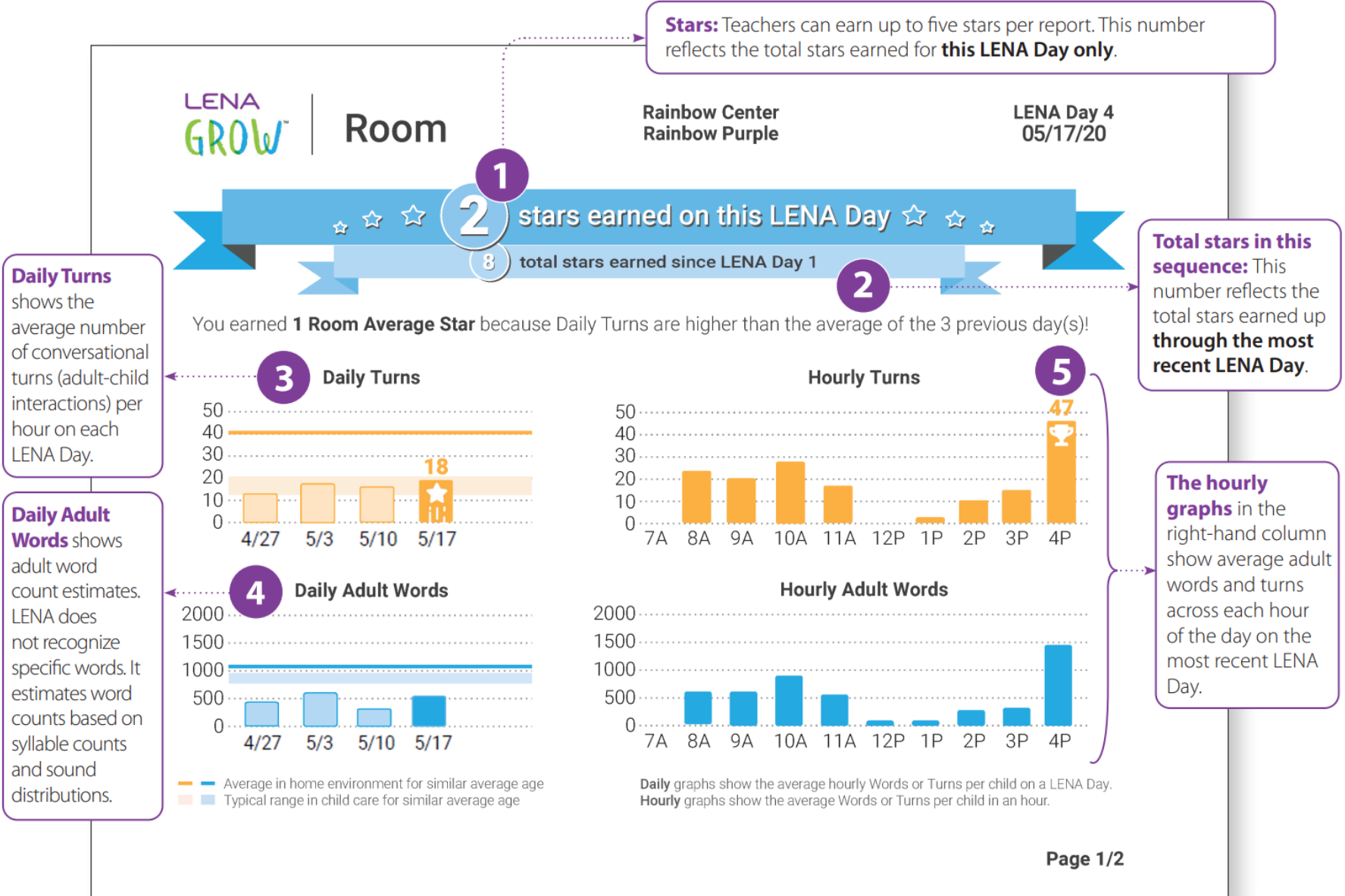
*The Domains of Scientific Inquiry and Social Studies are not explicitly addressed in the LENA Grow program.

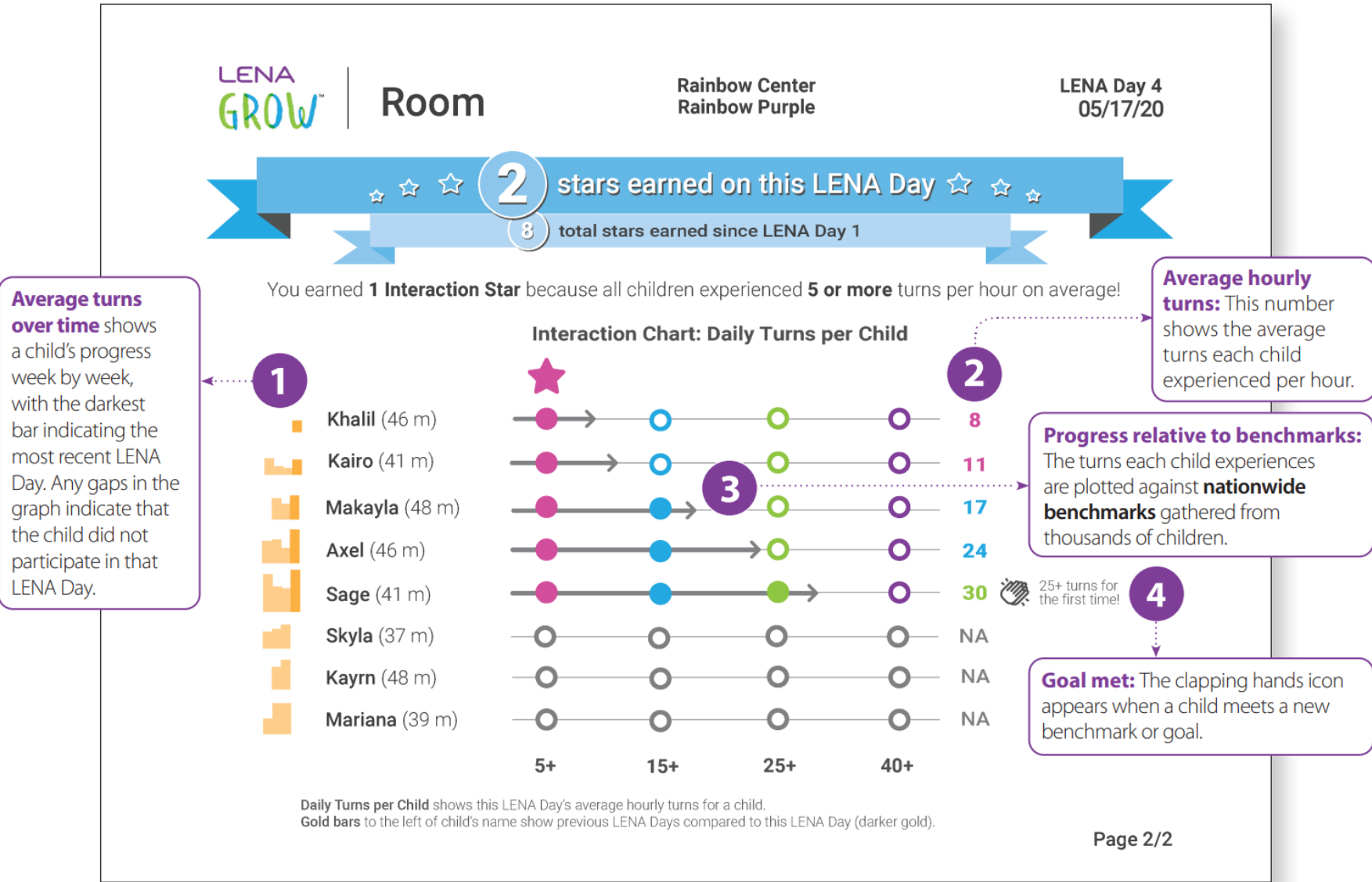
References

- Duncan, R., et al. (2022). Predictors of preschool language environments and their relations to children's vocabulary. *Infant and Child Development* 32(1). <https://doi.org/10.1002/icd.2381>
- Dynia, J. (2022). The Impact of a Language-Based Intervention with Individualized Coaching in Early Childhood Education Classrooms [White paper]. SproutFive Center for Early Childhood Innovation. https://drive.google.com/file/d/1dIN71WcKQ_FZAxnTWOWfNQihmCoAXCul/view
- Florida Office of Early Learning. (2017). Florida Early Learning and Developmental Standards: Birth to Kindergarten. Form OEL-SR 15. <https://flbt5.floridaearlylearning.com/docs/OEL-SR15BtoK.pdf>.
- Gilkerson, J. et al. (2018). Language experience in the second year of life and language outcomes in late childhood. *Pediatrics* 142(4). <https://doi.org/10.1542/peds.2017-4276>
- Gómez, E., & Strasser, K. (2025). Conversational Turns at Early Childhood Predicts Socioemotional Development at School Age. *Social Development*, 34(4). <https://doi.org/10.1111/desc.13109>
- Govoni, P. (2025a). LENA Grow and Early Literacy [White Paper]. LENA Foundation. <https://info.lena.org/lena-grow-early-literacy-white-paper>
- Govoni, P. (2025b). LENA Grow's Impact on Children's Kindergarten Readiness. [White Paper]. LENA Foundation. <https://info.lena.org/hubfs/Kindergarten%20Readiness%20White%20Paper.pdf>
- Heilmann, J., & Moyle, M. (2022). Evaluation of LENA Grow in Milwaukee Head Start Classrooms [White paper]. Next Door Milwaukee. https://www.nextdoormke.org/wp-content/uploads/2023/01/2022-Evaluation-of-LENA-Grow-in-Milwaukee-Head-Start-Classroom_Research.pdf
- Huber, E., et al. (2023). Language Experience During Infancy Predicts White Matter Myelination at Age 2 Years. *Journal of Neuroscience* 43(9): 1590-1599. <https://doi.org/10.1523/JNEUROSCI.1043-22.2023>
- LENA Foundation (2022a, February 1). Preliminary findings suggest LENA Grow accelerates language development. *LENA Blog*. <https://www.lena.org/lena-grow-developmental-snapshot-preliminary-results/>
- LENA Foundation (2022b, September 2). Research shows links between LENA Grow participation and social-emotional growth. *LENA Blog*. <https://www.lena.org/research-shows-links-between-lena-grow-participation-and-social-emotional-growth/>
- LENA Foundation (2023a, January 23) One teacher's story behind an evaluation of LENA Grow in Milwaukee. *LENA Blog*. <https://www.lena.org/lena-grow-evaluation-next-door-teacher-story/>
- LENA Foundation (2023b, March 14) Coaching for Impact in Sarasota County: Increased TS GOLD® and CLASS® Scores. *LENA Blog*. <https://www.lena.org/resources/blog-posts/lena-grow-coaching-child-care-sarasota/>
- LENA Foundation (2023c, February 7). Survey results suggest LENA Grow improves educators' professional outlook. *LENA Blog*. <https://www.lena.org/teacher-perception-survey-results-lena-grow/>

- LENA Foundation (2023d, April 18). Are we failing our youngest dual language learners?: New data insights on child care language environments. LENA Blog. <https://www.lena.org/dual-language-learners-in-child-care/>
- LENA Foundation (2024). Promoting Healthy Social Behavior, School Readiness, and Teacher Retention [Case study]. https://info.lena.org/hubfs/08.%20LENA_Grow/1.%20Growth/Partner%20reports%20and%20case%20studies/Porter-Leath%20Case%20Study.pdf
- Romeo, R., et al. (2018a). Beyond the 30-Million-Word Gap: Children's Conversational Exposure Is Associated with Language-Related Brain Function. *Psychological Science* 29(5). <https://doi.org/10.1177/0956797617742725>
- Romeo, R., et al. (2018b). Language Exposure Relates to Structural Neural Connectivity in Childhood. *Journal of Neuroscience* 38(36): 7870-7877. <https://doi.org/10.1523/JNEUROSCI.0484-18.2018>
- Romeo, R., et al. (2021). Neuroplasticity associated with changes in conversational turn-taking following a family-based intervention. *Developmental Cognitive Neuroscience* 49. <https://doi.org/10.1016/j.dcn.2021.100967>
- Russo, R. (2025). LENA Grow and Language/Social Skills [White paper]. LENA Foundation. https://info.lena.org/hubfs/LENA%20Grow%20Language%20and%20Social%20Skills%20White%20Paper_20250228.pdf
- Warren, S. (2015). Right from Birth [White paper]. https://info.lena.org/hubfs/RightFromBirth_Warren.pdf
- Weiss, Y., et al. (2022). Language input in late infancy scaffolds emergent literacy skills and predicts reading related white matter development. *Frontiers in Human Neuroscience* 16. <https://doi.org/10.3389/fnhum.2022.922552>

Sample Room Report p1





Sample Child Report

Average Hourly Adult Words: The average adult words spoken near the child plotted against nationwide benchmarks gathered from thousands of children.

Average Hourly Turns: The average back-and-forth interactions between the child and adults week by week.

Average Hourly Child Vocalizations: The average number of vocalizations expressed by the child, indicating opportunities for adult engagement.

Hourly counts for adult words, conversational turns, and child vocalizations for the highlighted day.

