

Alignment to Texas Rising Star

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, sometimes referred to as a "talk pedometer" or a "FitBit for conversation," is the global standard for measuring early language environments, including conversational turns. Visit www.LENA.org or email info@LENA.org to learn more about how LENA Grow supports early childhood educators' professional development.

About LENA Grow

LENA Grow is a practice-based professional development program that helps educators equitably improve classroom language environments in early learning settings, complementing Texas Rising Star's focus on teacher-child interactions. LENA's technology measures conversational turns, a metric strongly predictive of child outcomes. Conversational turns are measured at the level of the classroom and individual child alike, providing data-rich feedback reports designed to facilitate a strengths-based coaching framework that gives educators the tools they need to provide each and every child with the language support they need. Just as Texas Rising Star serves educators and caregivers across a wide variety of settings, LENA Grow is implemented in a variety of early learning settings throughout the U.S. and Texas, including private/state-funded child care centers, family child care homes, and Early Head Start and Head Start programs.

How LENA Grow Supports Texas Rising Star

LENA Grow supports continuous quality improvement in the Texas Rising Star category Teacher-Child Interactions . To measurably improve equitable interactions with each child in their care, educators participate in LENA Grow's five-week reflective feedback cycle. The cycle employs LENA's "talk pedometer" technology, strengths-based coaching, and early talk strategies to measurably increase conversational turns, one of the most predictive metrics of child outcomes.



Alignment of LENA Grow Core Elements to Texas Rising Star Categories

On the following pages, see further explanations of each category, as well as the core elements of LENA Grow.

Tex	xas Rising Star		LENA Grov	v Professional	Development	: Program: Cor	e Elements		
Category	Subcategory	category Research Base Str.		LENA Room Reports	LENA Child Reports	Weekly Strengths-based Coaching	Weekly Goal Setting, Documentation, and Practice	Family Engagement	
Category 1	Staff Qualifications, Orientation, and Training	√ √		√			V		
	Group Size/Staff Ratios	√		\checkmark	√				
	Warm and Responsive Style	√	\checkmark	√		√	V		
	Language Facilitation and Support	√	√	√	√	√	√	√	
Category 2	Play-Based Interactions and Guidance		√	√		√	√		
	Support for Children's Regulation		√	√	√	√	√		
	Instructional Formats and Approaches to Learning		√	√		√	√		
	Family Education		√		√		√	√	
Category 3	Family Involvement		√		√		√	√	
	Program Management	√		√	√	√	√		
Catagon	Indoor Learning Environments	√	√				√		
Category 4	Outdoor Learning Environments	√	√				√		

Core Elements of LENA Grow

- 1. **Research base:** LENA Grow is rooted in over a decade of peer-reviewed research linking conversational turns to improved language, brain, and socialemotional development. Over 400 researchers and clinicians in over 40 countries have used LENA technology to study early language development.
- 2. **Early talk strategies:** At each coaching session, teachers receive research-based curriculum materials that provide strategies for increasing 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 quantifies the number of conversational turns in the classroom across the day.
- **LENA Child Report:** At each coaching session, teachers review the Child Report, which 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. 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.
- 6. 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.
- 7. **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.

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, higher CLASS® scores, accelerated language development, and increased teacher job satisfaction and self-efficacy.

How LENA Grow Supports Each Texas Rising Star Categories

Category 1: Director and Staff Qualifications and Training

LENA Grow helps staff form a reflective practice habit that improves responsive caregiving and promotes continuous improvement. LENA grow motivates staff to be active participants in their professional development. It helps them not only understand the how but also the why of what they practice, building skills in data literacy, goal setting, and child observation. Upon completion, staff consistently report greater confidence and job satisfaction. The LENA Grow program sequence is designed with the flexibility to support a program's goals, as well as those of individual staff members. Two stackable five-week sequences can be delivered in a variety of ways, depending on the program and classroom needs: as a standalone five-week sequence, with both sequences back-to-back, or months apart. Completion provides 4.5 hours for LENA Grow 1 Essentials and 3.5 hours for LENA Grow 2 Insights.

LENA Grow program outcomes include the following:

- A deeper understanding of the important connection between language interaction and early brain development.
- Strategies to increase quality interactions equitably, achieved through the reflective feedback cycle.
- Objective data on which times of day promote the most/least amount of interactive talk and which children experience the most/least amount of interaction.
- Guidance on how to interpret data and apply it toward setting goals for lasting positive behavior change.

The LENA Grow Coach Guide provides week-by-week guidance for each coaching session, including weekly coaching intentions, teacher learning objectives, "caring coaching" callouts to enhance a focus on equity and inclusion, and checklists for facilitating each session.

LENA Grow has the potential to reduce teacher turnover through increased teacher self-efficacy. Survey data consistently verifies 90+ percent of early childhood professionals report an increase in confidence and job satisfaction after completing LENA Grow, and 95+ percent either like or love the program and would recommend the program to other early childhood professionals.³

Category 2: Teacher-Child Interactions

Through the reflective feedback cycle, LENA Grow strengthens teacher-child interactions, which are a foundation for classroom quality. The LENA Room Report and LENA Child Report provide a clear, hour-by-hour picture of how classrooms compare to national adult word count and conversational turn benchmarks. Using an accurate measure of adult words and conversational turns for a classroom, administrators can make decisions on how best to distribute staff resources to ensure optimal talk environments for all children across the day. Following best practice principles of adult learning, the LENA Grow feedback cycle provides opportunities for early childhood educators to learn strategies to increase talk with children, set measurable goals and practice strategies in their own classroom, and reflect on their own performance and each child's experience through objective feedback reports.

LENA's early talk strategies, the 14 Talking Tips, are research-based techniques for increasing early talk and supporting healthy language and social-emotional development. ⁴ Three research-based "active ingredients" power the 14 Talking Tips: creating joint attention, increasing conversational turn-taking, and then recasting. LENA's 14 Talking Tips, used throughout the program, aligns with the five TRS Teacher-Child Interactions subcategories: Warm Responsive Style; Language Facilitation and Support, Play-based Interactions and Guidance, Support for Children's Regulations, and Instructional Formats and Approaches to Learning.

Peer-reviewed research has established a causal link between increased conversational turns, the core metric LENA measures, and improved social-emotional competencies in the first three years of life. Further, research has shown LENA Grow has impacts on children's social and emotional health, including improved DECA (Devereux Early Childhood Assessment) scores.⁶

Category 3: Program Administration

Family Involvement Family Education LENA Grow offers the opportunity for early childhood professionals to engage families in two-way communication at each step of the program. The LENA Grow Teacher Guide embeds a family engagement component into each week of the program, including an activity to help teachers

establish and track a family engagement plan. Family engagement materials highlight the classroom's weekly focus, encouraging families to extend similar interactive talk strategies into the home. Additional resources to introduce the program to families and to support family self-efficacy and confidence include a shareable slideshow and social media toolkit. Resources are available in both English and Spanish, and the 14 Talking Tips are available in twelve languages. The LENA Child Report provides a window into the child's language experience in the classroom and can serve a tool to aid in ongoing school-home communication. LENA Grow's individualized Child Reports provide data that can support IEP goal setting and tracking.

Program Management Program evaluations have shown LENA Grow to support child assessment outcomes and increase the ability of early childhood professionals to individualize curriculum and set developmental goals that focus on promoting interaction and language development. Objective data on each child's language environment, along with individualized feedback sessions on how to interpret the data, supports teachers in setting goals for lasting positive behavior change. This results in positive outcomes for the young children they are supporting. LENA Grow classrooms have shown increases in TS Gold,⁷ DECA, and LENA Developmental Snapshot scores.⁸ Objective data reports provide both hourly counts and daily averages to support early childhood professionals in creating and achieving intentional, measurable goals for increased interactive conversation with individual children.

LENA Grow provides directors/administrators quantitative data that can help increase equity for all children as well as provide inclusive techniques that support children of all learning abilities and languages. LENA data indicate that even in classrooms and environments that are highly interactive, many children spend large portions of the day in relative silence or language isolation. Even in settings that are considered high quality overall, assumptions cannot be made about each individual child's experience or about equity of access to interaction and learning opportunities. LENA's data shows the importance of seeing both child-level measurements and classroom-level measurements to ensure equitable outcomes. Children who begin the program in relative isolation see the greatest gains in interaction. LENA data shows that children who start the program experiencing fewer than 15 conversational turns per second experience a 58% average increase in conversational turn rates by the end of the program. The program is a second experience of the program of the program. The program is a second experience of the program of the program. The program is a second experience of the program of the pr

Category 4: Indoor and Outdoor Environment

LENA's Conversation Starters focus on various classroom routines, including personal care routines, transitions, mealtimes, indoor and outdoor play, as well as shared reading, math, literacy, and songs & rhymes. These practical strategies enhance the implementation of a variety of curriculum models. LENA Grow's coaching sessions, room-level data reports, and individual child reports help teachers focus on increasing the quantity of conversational turns in their classrooms. The reports show hour-by-hour data, helping teachers focus on specific times of day to better understand how engaged children are during different activities. Teachers can then make adjustments to curricula, materials, and facilitation to enhance child engagement, optimizing cognitive development through the course of regular daily activities.

LENA's strengths-based approach to improving language environments provides early childhood professionals a deeper understanding of the connections between language interaction and early brain development. Peer-reviewed research from scholars at Harvard University, Columbia University, and other institutions has linked conversational turns not just to language development, but also to brain structure, ¹¹ brain function, ¹² and executive functioning ¹³ early in life. fMRI imaging technology has visually shown the relationship between interactive language experiences and brain activity. For instance, one study drew a correlation between conversational turns and activation in Broca's area of the brain, a well-known language center. They also support children's developmental progression in emerging

language and literacy. Children in LENA Grow classrooms have shown increases in TS Gold® scores¹⁴ and LENA Developmental Snapshot scores.¹⁵ In addition, peer-reviewed research has shown a link between increased conversational turns in preschool settings and improved vocabulary scores.¹⁶ They also support children's developmental progression in emerging language and literacy.

LENA's 14 Talking Tips Alignment to Texas Rising Star Classroom Assessment Form Category 2: Teacher-Child Interactions

This alignment was based on the <u>Texas Rising Star Classroom Assessment Record Form (CARF)</u> all ages 9-2021.

Note: The following CARF measures were not aligned with LENA's 14 Talking Tips: P-SCR-04; P-IFAL-01; P-IFAL-02; P-IFAL-04; P-IFAL-05.

								14 Talki	ng Tips						
Texas Rising Star Classroom Assessment Record Form: Category 2 Teacher Child Interactions		1: Talk about what you're doing and thinking.	2. Comment on what they're doing or looking at.	3: Name things that they're interested in.	4. Get down to their level: face to face.	5: Touch, hug, hold.	6: Tune in and respond to what they look at, do, and say.	7: Wait for their response.	8: Imitate them, and add words.	9: Make face, use gestures.	10: Take turns — don't do all the talking.	11: Repeat and add to what they say and do.	12: Follow their lead, do what interests them.	13: Encourage them, be positive.	14: Be silly! Relax and have fun!
	P-WRS-01 Creates a warm, safe, and nurturing environment				√	√	√	√						√	√
	P-WRS-02 Uses frequent positive nonverbal behaviors to increase feelings of acceptance					√				√					√
Warm and Responsive Style	P-WRS-03 Has a patient, relaxed style that helps maintain calmness in the classroom	√				√		√		√				√	√
l Respor	P-WRS-04 Notices and attends to children's needs and signals		√		√	√	√	√							
Warm and	P-WRS-05 Responds promptly and sensitively to children's cognitive and affective signals		√		√		√	√		√	√	√			
	P-WRS-06 Demonstrates an ability to adjust one's own behavior to meet the needs, interests, and abilities of individuals/groups of children		√	√	√		V	√	√		√	√	√		

								14 Talki	ng Tips						
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	P-LFS-01 Listens to children attentively and responds appropriately to their language, vocalizations, and nonverbal attempts at communication		√		√		√	√	V	V	√				
Support	P-LFS-02 Uses positive verbal responses and encouragement to provide reinforcement or acknowledge positive behavior or accomplishments	V	√										√	√	√
Language Facilitation and Support	P-LFS-03 Uses language to add meaning or expand on children's interests or agenda	√	√	√			√		√			√	√		
nguage Faci	P-LFS-04 Communicates with children throughout the day	√	√	√	√		√		√	√		√	√		
Lar	P-LFS-05 Uses descriptive language (specific labels and descriptors)	√	√	√			√		√			√			
	P-LFS-07Allows children time to respond to questions before providing the answer or asking another question				√			V			√				

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on and Support	P-LFS-08 Engages children in conversations (3–5 turns) about a variety of topics or provides commentary and encourages back-and-forth vocalization/gestures with infants and toddlers	V	V		V		√	V			V		V		
Language Facilitation and Support	P-LFS-09 Expands on children's understanding or initiation by elaborating on what children say or draw attention to		√	√			√		V			√	√		
	P-LFS-10 Extends children's language and/or models for children how to express complete ideas or sentences	V	√				V		V			√	√		
s and Guidance	P-PBIG-01 Supports a playful attitude on an ongoing basis for children to make believe, make choices, and adjust activities to their own interests.		√	√			√						√	√	√
Play-Based Interactions and Guidance	P-PBIG-02 Participates and expands on play initiated by children to reinforce language, ideas, and social development		√	√	√		√		√		√		√		√

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Texas Rising Star Classroom Assessment Record Form: Category 2 Teacher Child Interactions		1: Talk about what you're doing and thinking.	2: Comment on what they're doing or looking at.	3: Name things that they're interested in.	4. Get down to their level: face to face.	5: Touch, hug, hold.	6: Tune in and respond to what they look at, do, and say.	7: Wait for their response.	8: Imitate them, and add words.	9: Make face, use gestures.	10: Take turns — don't do all the talking.	11: Repeat and add to what they say and do.	12: Follow their lead, do what interests them.	13: Encourage them, be positive.	14: Be silly! Relax and have fun!
Play-Based Interactions and Guidance	P-PBIG-03 Provides guidance when children are working, in order to progressively build skills and knowledge rather than using overly directive strategies		V		√		√	V				V	V		
Play-Based Intera	P-PBIG-04 Provides opportunities for and/or facilitates children's social interactions with their peers	V					√					√	V	√	
s Regulation	P-SCR-01 Models or encourages emotional expression	V					✓		√			√		√	
	P-SCR-02 Provides children with short explanations that help them understand why they are feeling a certain way	V			√		√			V		V			
Support for Children'	P-SCR-03 Explains logical consequences for behaviors rather than providing arbitrary consequences	V					√								

								14 Talki	ng Tips	;					
Texas Rising Star Classroom Assessment Record Form: Category 2 Teacher Child Interactions		1: Talk about what you're doing and thinking.	2: Comment on what they're doing or looking at.	3: Name things that they're interested in.	4. Get down to their level: face to face.	5: Touch, hug, hold.	6: Tune in and respond to what they look at, do, and say.	7: Wait for their response.	8: Imitate them, and add words.	9: Make face, use gestures.	10: Take turns — don't do all the talking.	11: Repeat and add to what they say and do.	12: Follow their lead, do what interests them.	13: Encourage them, be positive.	14: Be silly! Relax and have fun!
s Regulation	P-SCR-05 Demonstrates flexibility and tolerance for minor mishaps and misbehaviors	√				V	√							√	
Support for Children's	P-SCR-06 Recognizes rising tensions and helps children understand the logical consequences of their actions before problem behaviors occur	V	√		√		√							√	
Support	P-SCR-07 Assists children in their communications and interactions with peers	√			√			√					√	√	
Instructional Formats & Approaches to Learning	P-IFAL-03 Routine and transition times are used as opportunities for incidental learning	V	√				√					V			

References

¹ "Where are LENA Programs?," https://www.lena.org/where-are-lena-programs/

² "Survey results suggest LENA Grow improves educators' professional outlook," https://www.lena.org/teacher-perception-survey-results-lena-grow/

³ "'An eye-opening experience': Survey shows overwhelming positivity for LENA Grow among teachers and coaches," https://www.lena.org/teachers-coaches-lena-grow/

⁴ "Right from Birth," https://www.lena.org/wp-content/uploads/pdf/research/RightFromBirth Warren.pdf

⁵ "Language and socioemotional development in early childhood: The role of conversational turns," https://doi.org/10.1111/desc.13109

⁶ "Research shows links between LENA Grow participation and social-emotional growth," https://www.lena.org/research-shows-links-between-lena-grow-participation-and-social-emotional-growth/

⁷ "LENA Grow: Coaching for impact in Sarasota County," https://www.lena.org/lena-grow-coaching-child-care-sarasota/

⁸ "Preliminary findings suggest LENA Grow accelerates language development," https://www.lena.org/lena-grow-developmental-snapshot-preliminary-results/

⁹ "QRIS and interaction: Do quality rating systems reflect individual experience?," https://www.lena.org/qris-and-interaction/

¹⁰ "LENA Grow Program Impact," https://info.lena.org/hubfs/LENA-Grow-Program-Impact.pdf

¹¹ "Language Exposure Relates to Structural Neural Connectivity in Childhood," https://doi.org/10.1523/JNEUROSCI.0484-18.2018

¹² "Beyond the 30-Million-Word Gap: Children's Conversational Exposure Is Associated with Language-Related Brain Function," https://doi.org/10.1177/0956797617742725

¹³ "Neuroplasticity associated with changes in conversational turn-taking following a family-based intervention," https://doi.org/10.1016/j.dcn.2021.100967

¹⁴ "The Impact of a Language-Based Intervention with Individualized Coaching in Early Childhood Education Classrooms," https://drive.google.com/file/d/1dlN71WcKQ FZAxnTWOWfNQihmCoAXCul/view

¹⁵ "Preliminary findings suggest LENA Grow accelerates language development," https://www.lena.org/lena-grow-developmental-snapshot-preliminary-results/

¹⁶ "Predictors of preschool language environments and their relations to children's vocabulary," https://doi.org/10.1002/icd.2381