

Crosswalk to the Devereux Early Childhood Assessment (DECA)

About LENA

LENA stands for Language ENvironment Analysis. LENA is a national nonprofit on a mission to transform children's futures through early talk technology and data-driven programs. The LENA System™ 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 the Devereux Early Childhood Assessment (DECA)

The DECA is a nationally standardized, reliable, and valid behavior rating scale that provides an assessment of within-child protective factors related to resilience and social and emotional development. There is a DECA for infants, one for toddlers and one for preschoolers, each of which allow both teachers and parents/family members to assess young children (1 month to 5 years old). Visit www.centerforresilientchildren.org or email deca@devereux.org to learn more.

How LENA Grow Supports the Devereux Early Childhood Assessment (DECA)

[LENA Grow](http://www.LENA.org) is a practice-based professional development program that helps teachers equitably improve classroom language environments, complementing DECA's protective factors. Teachers participate in a five-week reflective feedback cycle, employing LENA's "talk pedometer" technology, data-rich feedback reports, strengths-based coaching, and early talk strategies to measurably increase conversational turns — a metric strongly predictive of child outcomes as measured by the DECA. Conversational turns are simple back-and-forth verbal interactions between a child and an adult. Peer-reviewed research shows conversational turns have a positive impact on brain structure (Romeo et al., 2018a), brain function (Romeo et al., 2018b; Huber et al., 2023), executive functioning (Romeo et al., 2021), literacy skills (Weiss et al., 2022), vocabulary development (Duncan et al., 2022), social-emotional development (Gómez & Strasser, 2021), and middle school IQ scores (Gilkerson et al., 2018). LENA Grow is an evidence-based way for teachers to build nurturing, responsive relationships supporting children's social-emotional development (Russo, 2025). and resilience. LENA Grow is implemented in a variety of early learning settings throughout the U.S., including private/state-funded child care centers, family child care homes, school districts, and Head Start programs.

How LENA Grow Works



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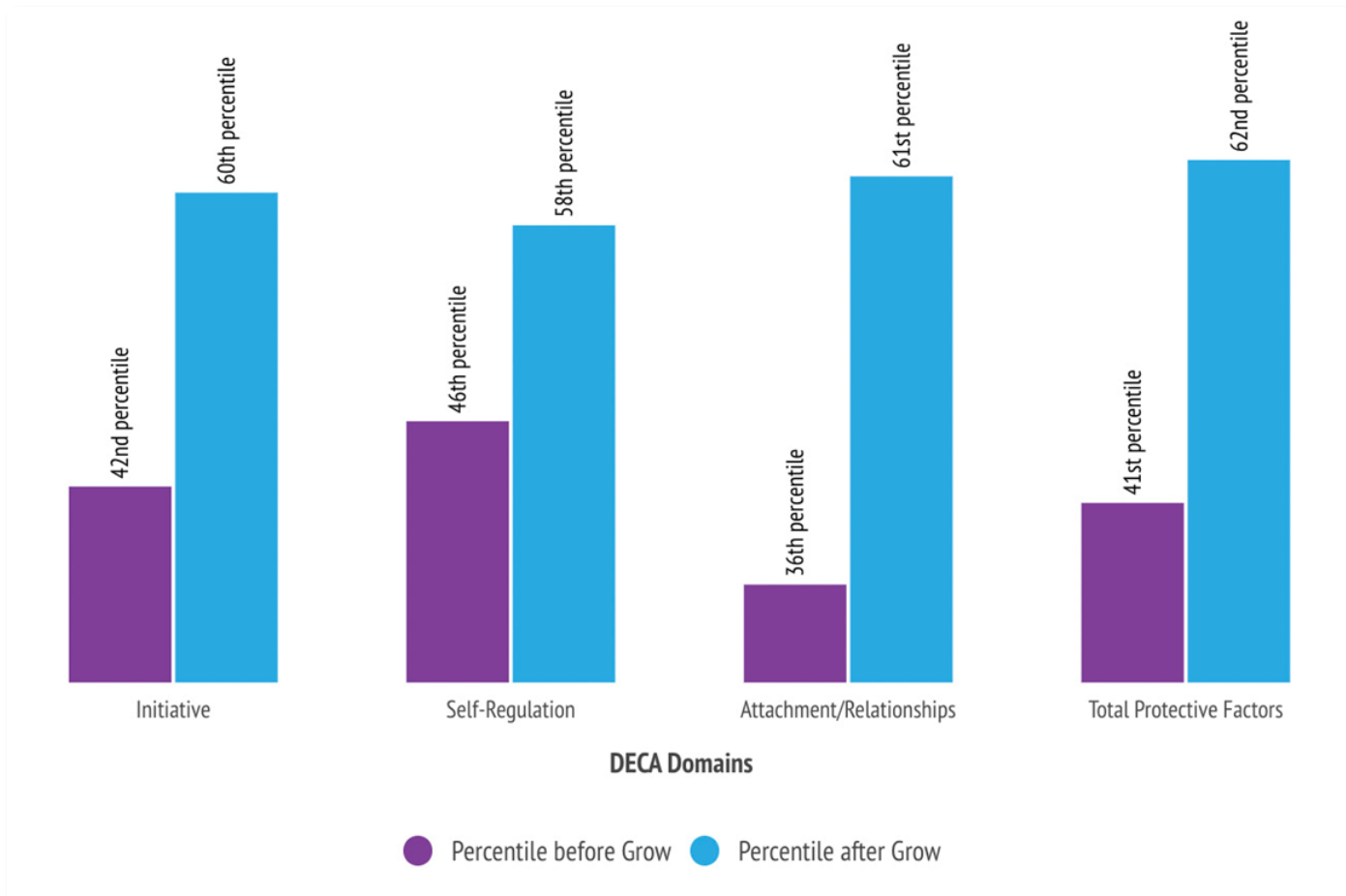
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LENA Grow Increases DECA Scores

We know that increased interactions can have a powerful impact on social-emotional growth as well as support the development of resilience. Children participating in LENA Grow at AppleTree Schools, and Educare in DC experienced significant increases in all domains of the Devereux Early Childhood Assessment (DECA), which measures social and emotional health and resilience. The DECA tool describes children as fitting into one of three categories: Area of Need, Typical, or Strength. LENA Grow participants were 10 times more likely to move up a category than to regress.



How LENA Grow Supports DECA’s Protective Factors

Learning to increase conversational turns — the foundation of LENA Grow — complements the protective factors measured in the DECA tool. The core elements of LENA Grow work together to provide a cohesive, empowering professional development experience for teachers that drives meaningful and lasting increases in interaction. Peer-reviewed research has established a causal link between increased conversational turns and improved social-emotional competencies in the first three years of life (Gómez & Strasser, 2021).

DECA Protective Factors	How LENA Grow supports:
Attachment/Relationship	LENA Grow increases teacher-child interactions, strengthening positive, responsive adult-child relationships. The weekly LENA Room reports provide actionable data on teacher responsiveness and overall interaction quality. Child-level data helps teachers reflect on differentiation and equity, identifying children experiencing lower engagement and needing additional targeted support.
Initiative	LENA’s 14 Talking Tips are research-based strategies for effectively engaging young children, creating joint attention, increasing conversational turn-taking, and recasting (Warren 2015). LENA Grow materials provide strategies on how to effectively engage young children during indoor and outdoor play to promote children’s exploration, initiative, and problem-solving.
Self-Regulation	Teachers receive research-based curriculum materials that provide ideas on how to effectively engage young children during times of the day that may be stressful for them, including personal care routines, transitions, and mealtimes. LENA Room reports allow teachers to focus on specific self-regulation strategies that help to foster a more supportive environment for children. As children increase their ability to vocalize with their teachers and peers, they are better able to express their emotions and needs.

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 social-emotional development. More than 400 researchers and clinicians in over 40 countries have used LENA technology to study early language development (LENA Foundation, 2023b).
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.
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.

Crosswalk of LENA's 14 Talking Tips to the DECA's Protective Factors

LENA's early talk strategies, the 14 Talking Tips, are research-based techniques for increasing early talk and strengthening responsive adult-child relationships. Three research-based "active ingredients" power the 14 Talking Tips: creating joint attention, increasing conversational turn-taking, and recasting (*Warren, 2015*). Conversational turns support children's developmental progression in social skills. This chart illustrates how the 14 Talking Tips Support the development of protective factors by age group in each of the three areas, Attachment/Relationships, Initiative, and Self-regulation.

DECA Protective Factors Attachment/ Relationships	LENA's 14 Talking Tips																
	Infant	Toddler	Preschool	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 faces, 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!
Act happy	●				✓	✓			✓							✓	✓
Respond positively to adult attention	●			✓							✓		✓		✓		✓
Calm down with help from a familiar adult	●						✓	✓	✓	✓						✓	
Act in good mood	●				✓							✓			✓		✓
Smile at familiar adults	●	●							✓			✓				✓	✓
Act happy with familiar adults	●	●						✓									
Show pleasure when interacting with adults	●	●				✓	✓		✓	✓			✓		✓	✓	
Smile back at familiar adults	●	●								✓						✓	✓
Accept comfort from a familiar adult	●	●						✓	✓							✓	
Seek comfort from familiar adults	●	●					✓	✓								✓	
Make eye contact with others	●	●					✓			✓							
Respond when spoken to	●	●					✓		✓	✓		✓	✓				

DECA Protective Factors Attachment/ Relationships	Infant	Toddler	Preschool	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 faces, 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!
Enjoy being cuddled	●	●						✓								✓	✓
Enjoy interacting with others	●	●					✓			✓		✓	✓			✓	✓
Show affection for familiar adults	●	●	●					✓				✓				✓	✓
Express a variety of emotions		●		✓					✓					✓			
Reach for familiar adults		●					✓	✓								✓	
Make needs known to a familiar adult		●		✓			✓			✓		✓	✓				
Act happy when praised		●			✓				✓							✓	
Make others aware of his or her needs		●		✓	✓					✓			✓				
Show interest in his or her surroundings		●				✓			✓		✓			✓			
Respond to his or her name		●					✓		✓								
Seem happy or excited to see his/her parent or guardian			●						✓			✓				✓	✓
Act in a way that makes adults smile or show interest in him or her			●			✓	✓		✓	✓			✓		✓	✓	
Look forward to activities at home or school			●			✓			✓						✓	✓	✓
Trust familiar adults and believe what they say			●	✓			✓	✓					✓				
Show preference for certain adult			●				✓	✓								✓	
Seek help from children/adults when necessary			●	✓			✓			✓		✓	✓				

DECA Protective Factors Initiative	Infant	Toddler	Preschool	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 faces, 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!
Show interest in what others are doing	●			√					√								√
Imitate actions of others	●			√		√	√			√				√			
Keep trying when unsuccessful	●				√				√							√	
Act happy when praised	●							√								√	√
Explore surroundings	●				√	√									√		
Express his/her dislikes	●			√	√				√	√						√	
Reach for familiar adult	●							√								√	√
Respond to his or her name	●				√		√										
Keep trying to obtain toy	●				√				√	√						√	
Act in a way that makes others show interest	●					√			√						√	√	
Easily go from one activity to another	●			√	√												
Enjoy being around other children	●			√		√											
Look to familiar adults when exploring surroundings	●			√	√									√			
Show concern for other children	●	●		√	√				√								
Try to do new things	●	●	●		√	√					√						
Try to comfort others		●		√										√		√	
Play make-believe		●				√					√			√	√		

DECA Protective Factors Initiative	Infant	Toddler	Preschool	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 faces, 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!
React to another child's cry		●		✓	✓			✓								✓	
Ask to do new things		●				✓			✓						✓	✓	
Participate in group activities		●		✓												✓	✓
Follow simple directions		●					✓			✓		✓					
Choose to do a task that was hard for him/her			●	✓	✓				✓			✓			✓	✓	
Try different ways to solve a problem			●		✓				✓		✓				✓	✓	
Show confidence in his/her ability			●		✓							✓				✓	
Show an interest in learning new things			●			✓			✓						✓	✓	
Keep trying when unsuccessful			●	✓	✓				✓			✓			✓	✓	
Start or organize play with others			●		✓	✓			✓							✓	

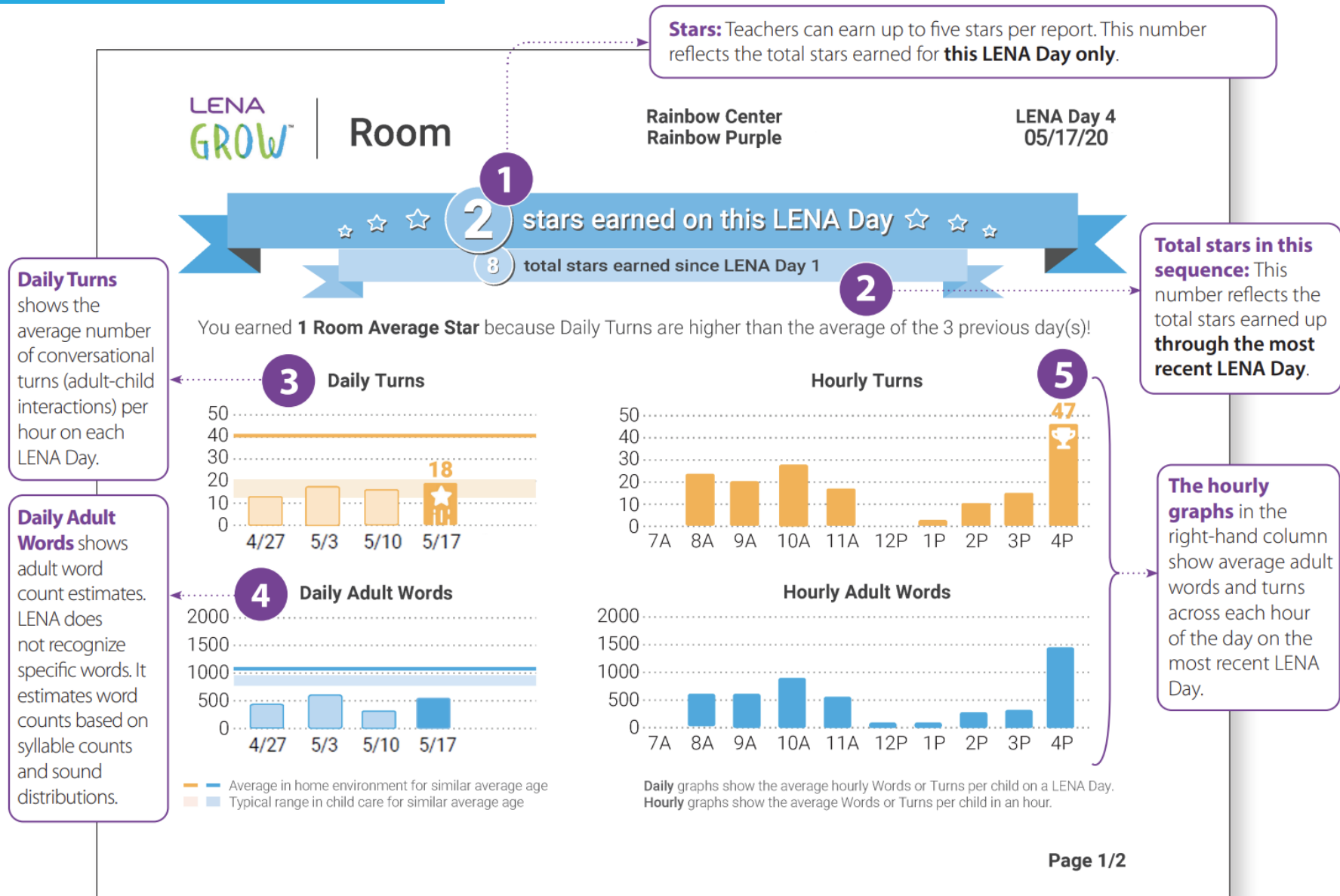
DECA Protective Factors Self-Regulation	Toddler	Preschool	1: Talk about what you're doing and thinking.	2: Comment on what they're doing or looking at.	3: Name things that they're interested in.	4: Get down to their level: face to face.	5: Touch, hug, hold.	6: Tune in and respond to what they look at, do, and say.	7: Wait for their response.	8: Imitate them, and add words.	9: Make faces, 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!
Adjust to changes in routine	●		✓			✓			✓							
Easily follow a daily routine	●		✓					✓						✓	✓	
Easily go from one activity to another	●		✓					✓						✓	✓	
Accept another choice when the first choice is not available	●	●	✓		✓									✓		
Calm him or herself	●	●									✓				✓	✓
Handle frustration well	●	●	✓					✓					✓		✓	
Control his/her anger		●		✓			✓				✓				✓	
Show patience		●	✓												✓	
Cooperate with others		●	✓					✓	✓			✓			✓	
Share with other children		●		✓				✓							✓	
Listen to respect others		●	✓			✓		✓	✓			✓				
Play well with others		●		✓				✓							✓	✓



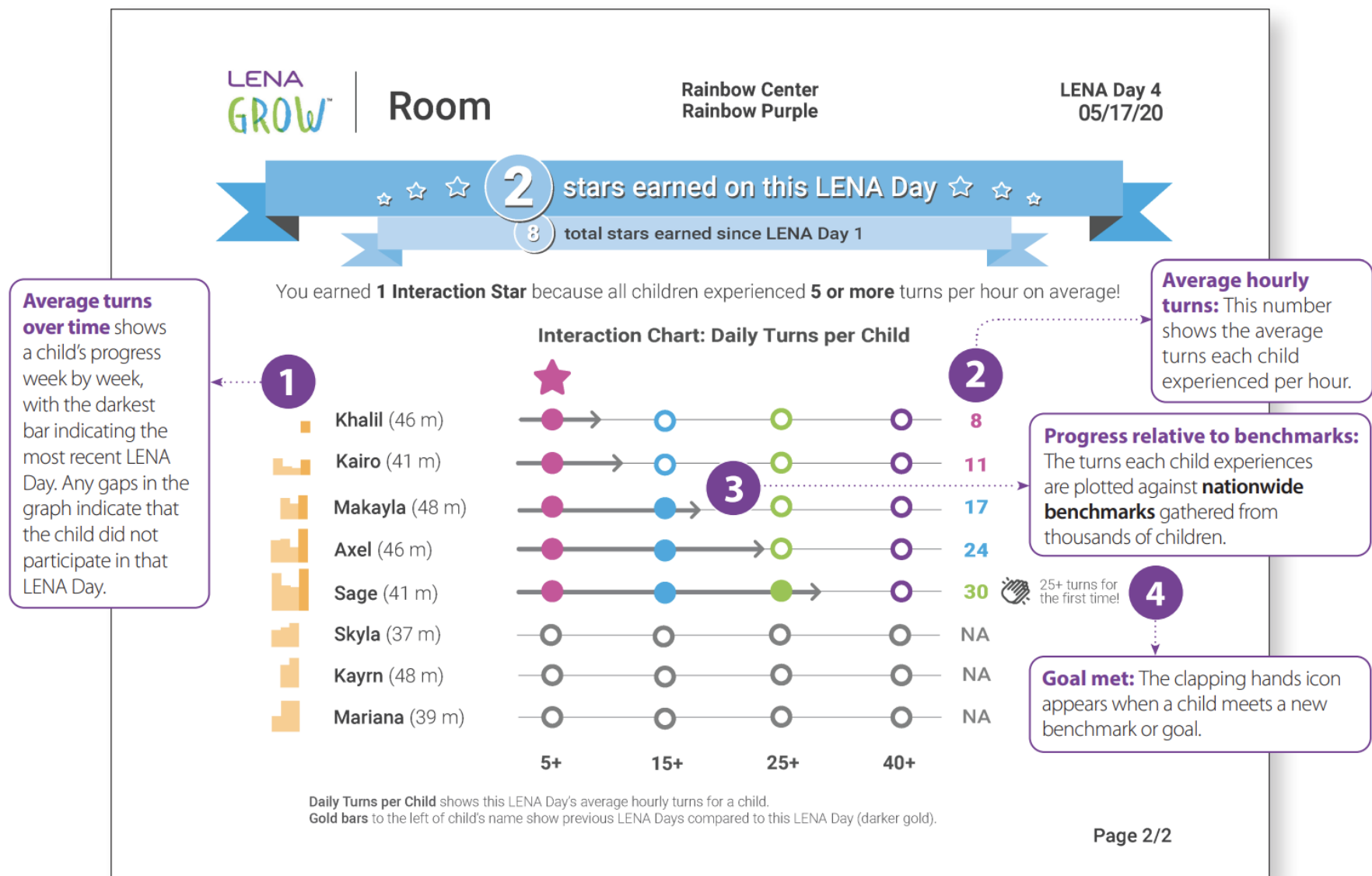
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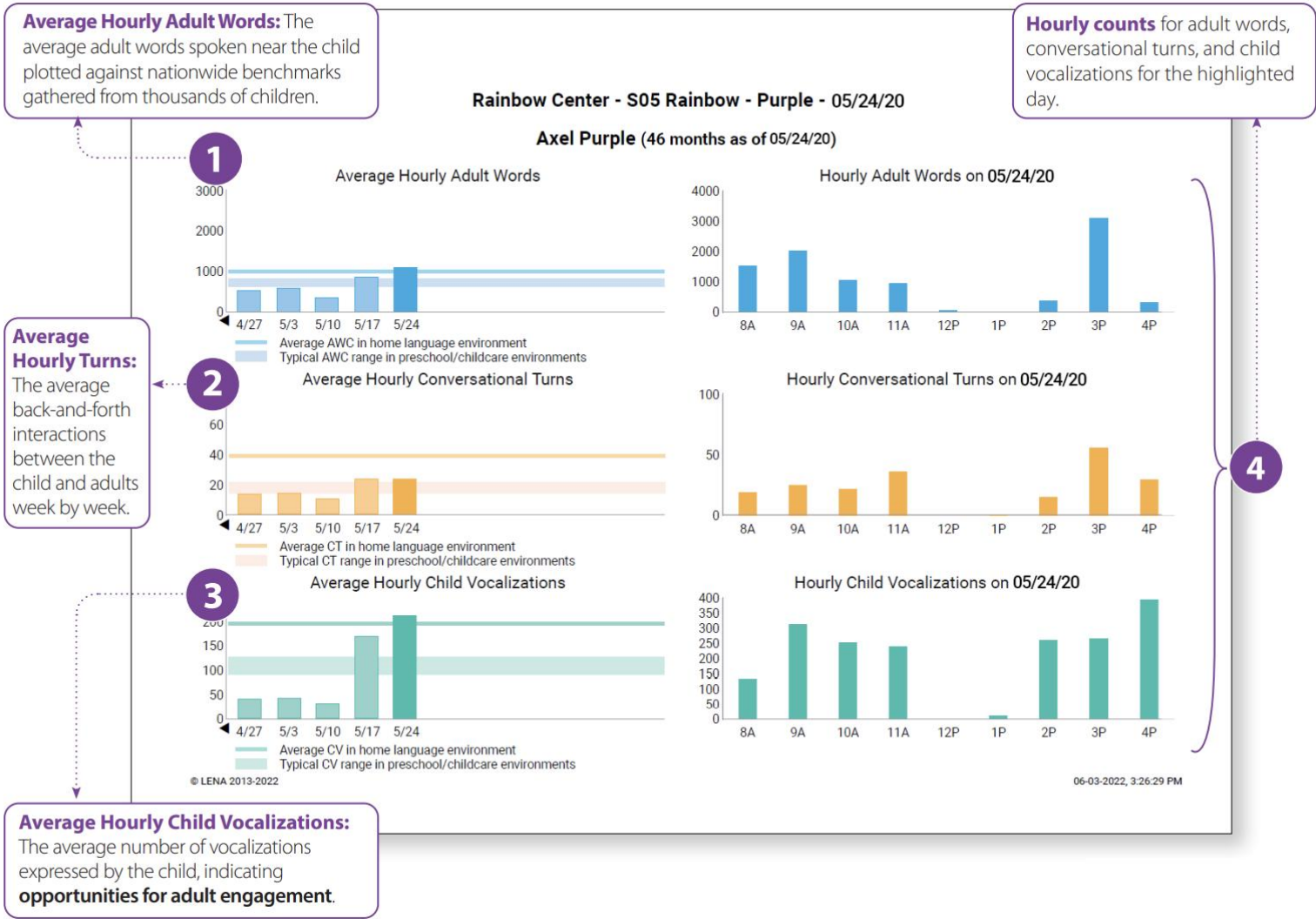
Reference 1: Sample Room Report



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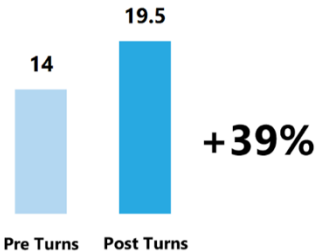


Reference 2: Sample Child Report

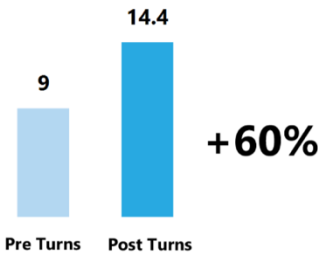


Child Equity

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



Children who started out experiencing **less talk than their peers in the same classroom** (in the bottom third) had an average increase of **+5.5 turns per hour**.



Children who started out experiencing **less talk than the national median of 15 turns per hour** had an average increase of **+5.4 turns per hour**.

Teachers

At the end of a 5-week sequence, teachers complete a survey reporting on the impact of the LENA Grow program.



Recommend LENA Grow
to other teachers
(n=3894)



Now feel **more confident**
in teaching abilities
(n=3895)



Increased overall **job satisfaction**
(n=3885)



Increased **communication with families**
(n=3877)



Saw changes in **children's language development**
(n=3885)

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
- 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. (2021). Language and socioemotional development in early childhood: The role of conversational turns. *Developmental Science*, 24(5). <https://doi.org/10.1111/desc.13109>
- Govoni, Paul (2025). LENA Grow and Early Literacy [White paper]. LENA Foundation.
- 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>
- 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, Rosemary (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>