



# LENA Grow Crosswalk with the FSU 10 Components of Quality Care for Infants and Toddlers

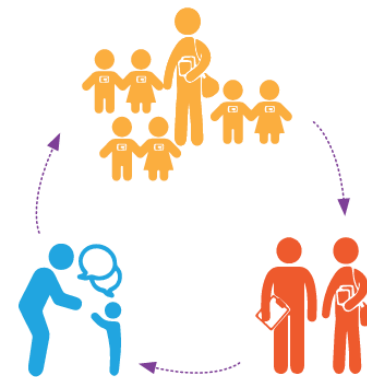


## About LENA

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

## How LENA Grow Supports the FSU 10 Components of Quality Care for Infants and Toddlers

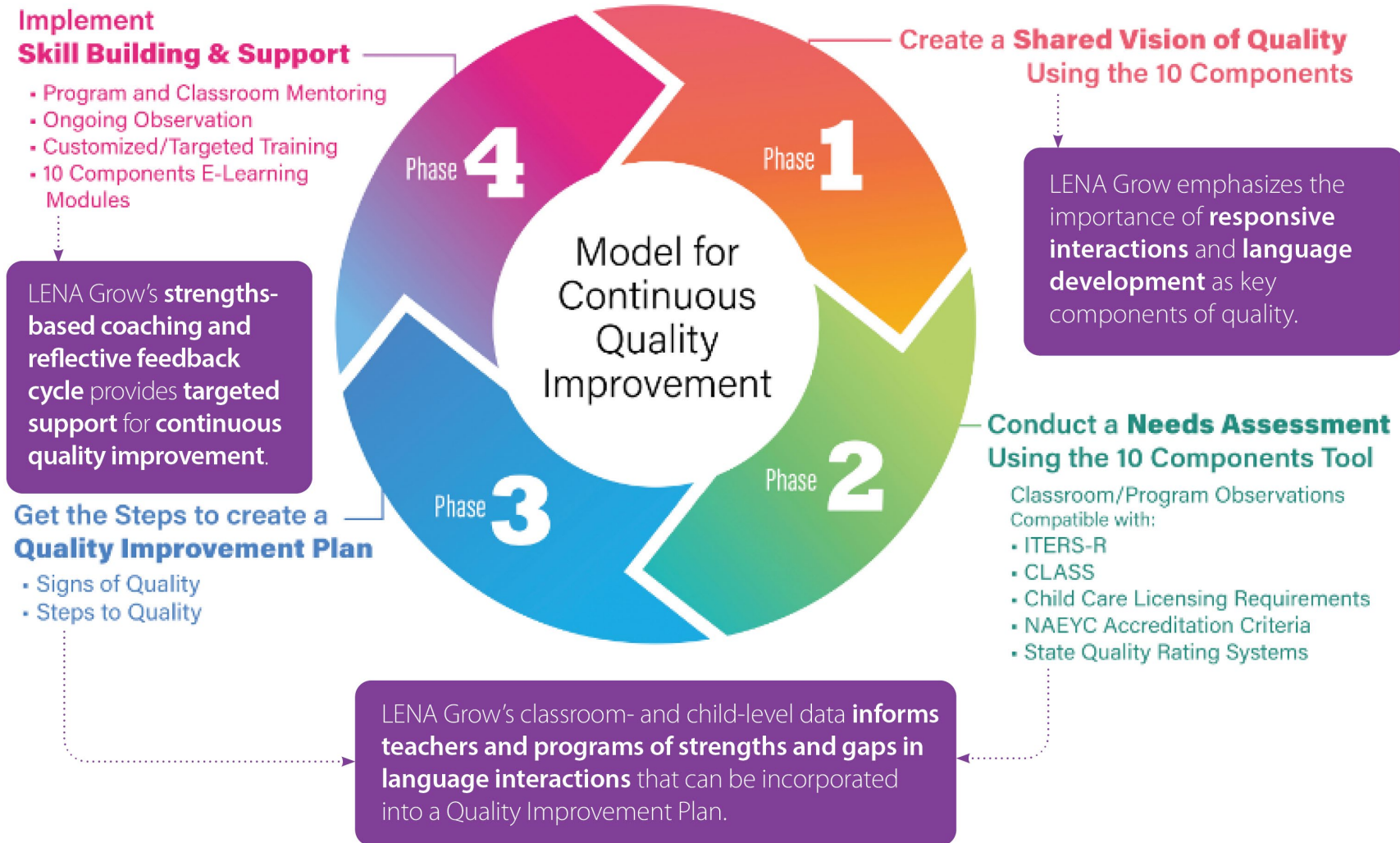
[LENA Grow](https://LENA.org) is an evidence-based professional development program that supports and fosters responsive relationships and promotes continuous quality improvement, complementing the **FSU 10 Components of Quality Care for Infants and Toddlers** (FSU CPEIP, 2024). Teachers participate 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 long-term cognitive outcomes such as IQ score (Gilkerson et al., 2018).



- 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.

LENA Grow builds a reflective teaching practice that strengthens the classroom language environment. 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 and tailored to each child's needs, supporting individualization 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 10 Components 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, family child care homes, and Head Start programs.

# LENA Grow supports the 10 Components Model of Continuous Quality Improvement



## 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 improved language environments, higher TS GOLD® and CLASS® scores, accelerated language development, and increased teacher job satisfaction and self-efficacy.

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.

## LENA Grow Supports the 10 Components of Quality Care for Infants and Toddlers

FSU 10 Components of Quality Care for Infants & Toddlers		LENA Grow Professional Development Program: Core Elements						
Areas	Components	Research Base	Early Talk Strategies	LENA Room Reports	LENA Child Reports	Weekly Strengths-based Coaching	Weekly Goal Setting, Documentation, and Practice	Family Engagement
Foundations	2. Staff Well-Trained	√	√	√			√	
Relationships	4. Small Groups with Optimal Ratios			√	√			
	5. Primary Caregiving and Continuity of Care		√	√	√	√		
	6. Active & Responsive Caregiving		√	√	√	√	√	
Language & Learning	7. Curriculum and Individualization		√		√	√	√	
	8. Emerging Language & Literacy	√	√	√	√	√	√	√
Family Support	9. Family Engagement & Cultural Continuity		√		√	√		√
	10. Comprehensive Support Services				√	√	√	

\*Components 1 and 3 are not explicitly addressed in the LENA Grow program.

## How LENA Grow Supports Each Component

### Component 2. Staff Well-Trained

*Teacher education in early childhood development and ongoing in-service training promotes the teacher's ability to address the unique needs of infants and toddlers and diverse families. Quality programs implement a system of observation, feedback, and reflective practice. Staff at all levels are offered opportunities for mentoring/coaching support and professional development specific to infants, toddlers, and families.*

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LENA Grow is a job-embedded professional development program that equips educators with tools to enhance responsive caregiving and improve classroom language environments. In addition to responsive caregiving, teachers develop skills in data literacy, goal setting, and child observation through strengths-based coaching and data-informed reflection. The program provides objective classroom- and child-level data, empowering educators to set meaningful goals and recognize their progress. This reflective feedback cycle fosters engagement and supports continuous quality improvement.

The coaching sessions are a parallel process, providing teachers with the opportunity to practice engagement skills with their coaches. Teachers receive LENA's 14 Talking Tips, research-based materials that provide strategies on how to effectively engage young children, creating joint attention, increasing conversational turn-taking, and recasting (Warren, 2015). The LENA Grow program sequence is designed with flexibility to support both a program's goals and those of individual education staff. The LENA Grow Coach and Teacher Guides provide week-by-week guidance for each coaching session, including weekly coaching intentions, teacher learning objectives, "caring coaching" callouts to enhance strengths-based focus, and checklists for facilitating each session.

LENA Grow has demonstrated significant potential to improve teacher retention by enhancing educator self-efficacy and job satisfaction (Dynia, 2022). Survey data show that over 90% of participants report increased confidence and satisfaction, with more than 95% recommending the program to peers (LENA Foundation, 2023c). LENA's 14 Talking Tips, used throughout the program, align with the domains and dimensions of the Infant/Toddler CLASS assessment, and classrooms have demonstrated improved CLASS scores upon completion of LENA Grow (LENA Foundation, 2023d).

#### **Component 4. Small Groups with Optimal Ratios**

*Group size and ratios determine the amount of time and attention each teacher can devote to an individual child. Small groups promote a sense of intimacy and safety, which supports a rich learning environment. With small groups and more staff, teachers can build strong relationships with children and adapt activities to meet their changing interests and needs. Throughout the day, teachers remain engaged with the small group of children and serve as their “secure base” both indoors and outdoors.*

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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.

#### **Component 5. Primary Caregiving & Continuity of Care**

*In quality programs, each child is assigned a teacher who has the primary responsibility for that child and with whom they build a meaningful relationship. The primary caregiver also builds a respectful relationship with the family and partners with them to ensure the best outcomes for their child. Optimally, children experience continuity of care when they remain with the same primary caregiver from entry into care until three years of age. This provides the foundational support for the child’s healthy social-emotional development and promotes readiness to start school.*

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During the LENA Grow five-week sequence, teachers utilize a reflective feedback cycle to interpret objective child-level language data and acquire simple, research-based strategies to increase conversational turns, thereby fostering a responsive and meaningful relationship with each child in their care.

#### **Component 6. Active & Responsive Caregiving**

*Responsive caregiving helps infants and toddlers begin to understand and regulate their emotions, and provides predictability, safety, and security. Responsive teachers take cues from each child and know when to expand on their initiative, when to guide, and when to intervene. They respond to signs of stress in children and provide comfort and security as needed. Teachers promote the child’s emerging sense of self and relationships with others and show acceptance and respect for all children.*

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LENA Grow fosters responsive teacher-child interactions that promote trust, emotional security, and strong relationships. Objective classroom- and child-level data, providing insights that help educators tailor consistent, individualized interactions that foster responsive caregiving. Teachers also receive research-based resources to 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 gain confidence and increase their vocalizations, they become more capable of expressing their feelings and needs, further strengthening the teacher-child relationship. 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, 2025). Additionally, participation in LENA Grow has been associated with improved scores on DECA (LENA Foundation, 2022c) and TS GOLD® (Russo, 2025).

## Component 7. Curriculum & Individualization

*Curriculum for infants and toddlers happens within the context of relationships, predictable daily routines, and discovery through play. Teachers observe and reflect on the unique abilities, temperaments, and developmental needs of each child. Individualization occurs when those observations are used to shape interactions, offer experiences, and supply materials that promote curiosity and encourage children to follow their own interests.*

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Program evaluations have demonstrated that LENA Grow supports child assessment outcomes and enhances 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, support teachers in setting goals for lasting positive behavior change.

LENA data indicate that even in highly interactive classrooms, many children spend large portions of the day in relative silence or language isolation (LENA Foundation, 2022b). Even in settings that are considered high quality overall, assumptions cannot be made about each individual child's experience or access to interaction and learning opportunities. LENA's data highlights the importance of considering both child-level measurements and classroom-level measurements to ensure that each child is engaging in interactions with their teachers. Children who start the program in relative isolation tend to see the greatest gains in interaction. LENA data shows that children who start the program experiencing fewer than 15 conversational turns per hour experience a 58% average increase in conversational turn rates by the end of the program (LENA Foundation, 2025).

## Component 8. Emerging Language & Literacy

*The path to language and literacy begins with interactions between adults and young children. In quality programs, teachers build language experiences within daily routines. When possible, teachers speak the primary or home language of the children. They respond to the sounds made by infants and toddlers and use words to give meaning to what children are expressing. Teachers maintain a balance between listening to and talking with each child. Books and other print materials are available throughout the classroom. Shared reading is enjoyed daily, and families are encouraged to read with their children at home. Songs, nursery rhymes, finger plays, and pre-writing materials promote the development of language and literacy.*

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LENA's strengths-based approach to improving language environments provides early childhood professionals with a deeper understanding of the connections between language interaction and early brain development. LENA's 14 Talking Tips, rooted in the active ingredients of joint attention, conversational turn-taking, and recasting (Warren, 2015), provide teachers with practical, research-based strategies to foster rich language experiences. Teachers receive resources with a focus on shared reading, early literacy, and songs & rhymes. These practical strategies facilitate the implementation of various curriculum models. 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 developmental progression in emerging language and literacy.

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 shown increases in TS GOLD® language and literacy scores (Dynia, 2022; Moyle et al., 2025; Govoni, 2025a; Russo, 2025), LENA Developmental Snapshot scores (LENA Foundation, 2022a), and improved performance on kindergarten readiness assessments (Govoni, 2025b).

## Component 9. Family Engagement & Cultural Continuity

*Families are essential participants in quality programs for infants and toddlers. They provide invaluable information about their children to teachers and center staff. Teachers communicate each day with families, welcome them into their child's classroom, and organize events that include family members. Families are informed about and have opportunities to influence the curriculum and program decisions. Programs incorporate practices that reflect the values, beliefs, cultures, and communities of the families they serve.*

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LENA Grow incorporates meaningful and consistent family involvement throughout each week of the program. In Week 2, teachers develop a tailored action plan for engaging families, reinforcing a collaborative approach to language development. Handouts focused on the critical role of adult-child interaction in early brain development help build a shared understanding between teachers and families. These resources can be shared in person, electronically, or on paper, and are designed to encourage a two-way conversation about how to provide a child with the interaction they need to thrive. The LENA Child Report offers unique insight into a child's classroom language experience and serves as a valuable tool for strengthening ongoing school-home partnerships. To sustain engagement beyond the program, LENA provides a comprehensive social media toolkit and additional downloadable materials. All resources are available in both English and Spanish, with the 14 Talking Tips offered in more than a dozen languages.

## Component 10. Comprehensive Support Services

*High-quality child care serves as a protective factor for young children and plays a pivotal role in children's well-being. Child care professionals partner with families in careful observation of each child's development and recognize signs of stress and adversity. Specific protocols are established for routine developmental screenings and ongoing comprehensive assessment. Trauma-informed practices are in place to build in strategies and targeted supports for infants, toddlers, and families. Teachers and program administrators work with consultants and community agencies to ensure families are linked to social services, health services, therapeutic interventions, and early childhood mental health consultation, as needed. Ongoing communication and multidisciplinary support teams ensure continuity of services across settings, enrich child development, and promote positive outcomes that support and strengthen families.*

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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's individualized Child Reports can be shared and provide data that can support IEP goal setting and tracking.

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Room

Rainbow Center  
Rainbow Purple

LENA Day 4  
05/17/20

**Stars:** Teachers can earn up to five stars per report. This number reflects the total stars earned for **this LENA Day only**.

**2 stars earned on this LENA Day** ☆ ☆ ☆

8 total stars earned since LENA Day 1

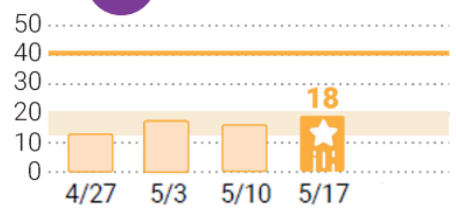
**Total stars in this sequence:** This number reflects the total stars earned up through the most recent LENA Day.

**The hourly graphs** in the right-hand column show average adult words and turns across each hour of the day on the most recent LENA Day.

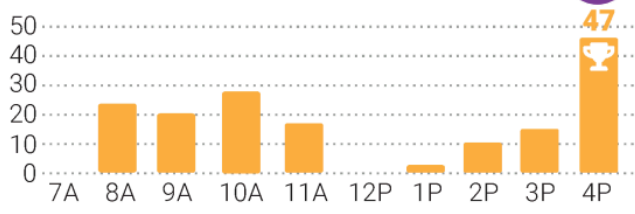
**Daily Turns** shows the average number of conversational turns (adult-child interactions) per hour on each LENA Day.

You earned **1 Room Average Star** because Daily Turns are higher than the average of the 3 previous day(s)!

**3 Daily Turns**

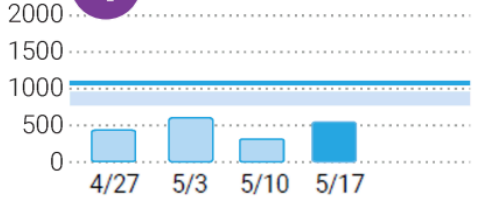


**Hourly Turns**

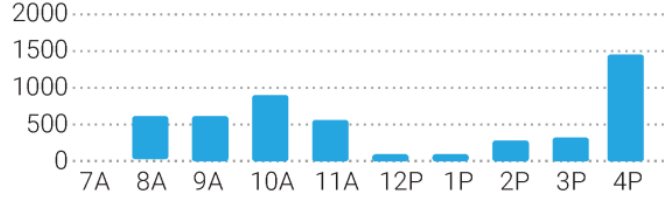


**Daily Adult Words** shows adult word count estimates. LENA does not recognize specific words. It estimates word counts based on syllable counts and sound distributions.

**4 Daily Adult Words**



**Hourly Adult Words**



— Average in home environment for similar average age  
— Typical range in child care for similar average age

**Daily** graphs show the average hourly Words or Turns per child on a LENA Day.  
**Hourly** graphs show the average Words or Turns per child in an hour.



Room

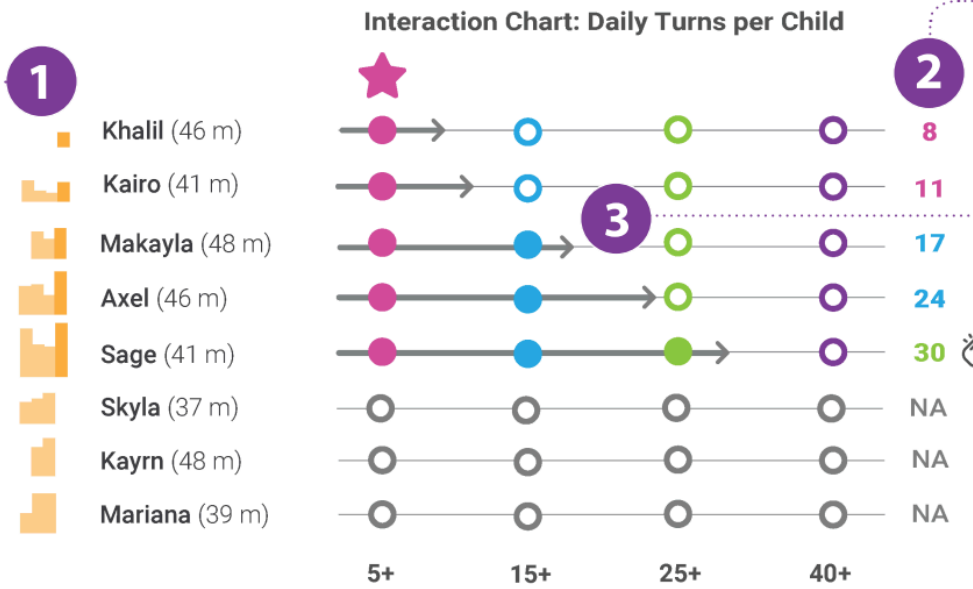
Rainbow Center  
Rainbow Purple

LENA Day 4  
05/17/20

☆ ☆ ☆ **2** stars earned on this LENA Day ☆ ☆ ☆  
8 total stars earned since LENA Day 1

You earned **1 Interaction Star** because all children experienced **5 or more** turns per hour on average!

**1** **Average turns over time** shows a child's progress week by week, with the darkest bar indicating the most recent LENA Day. Any gaps in the graph indicate that the child did not participate in that LENA Day.



**2** **Average hourly turns:** This number shows the average turns each child experienced per hour.

**3** **Progress relative to benchmarks:** The turns each child experiences are plotted against **nationwide benchmarks** gathered from thousands of children.

**4** **Goal met:** The clapping hands icon appears when a child meets a new benchmark or goal.

Daily Turns per Child shows this LENA Day's average hourly turns for a child. Gold bars to the left of child's name show previous LENA Days compared to this LENA Day (darker gold).

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

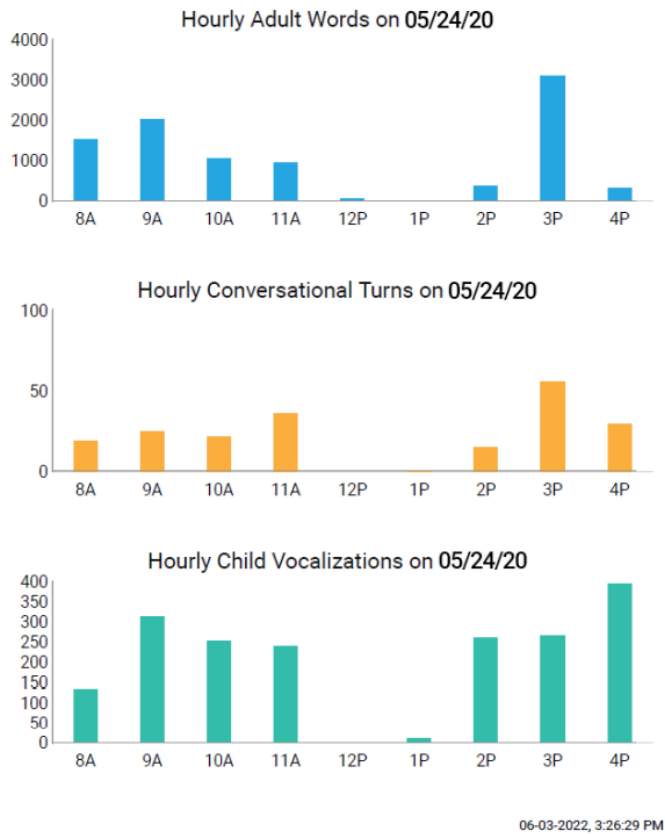
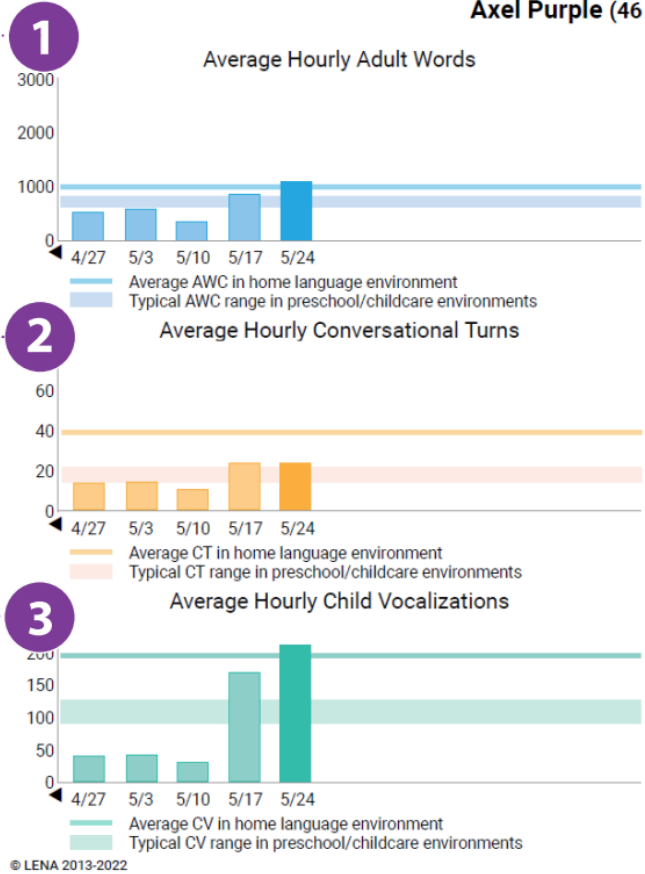
**Average Hourly Turns:** The average back-and-forth interactions between the child and adults week by week.

**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.

## Rainbow Center - S05 Rainbow - Purple - 05/24/20

**Axel Purple (46 months as of 05/24/20)**



**4**