

Crosswalk with Desired Results Developmental Profile[©] (DRDP)

About LENA

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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 <u>LENA.org</u> or email <u>info@LENA.org</u> to learn more about how LENA Grow supports early childhood teachers' professional development.

How LENA Grow Supports Desired Results Developmental Profile® (DRDP)

<u>LENA Grow</u> is an evidenced-based professional development program that helps teachers equitably improve classroom language environments, complementing DRDP's measures for children's early development. To improve equitable interactions with each child in their care, teachers 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.

LENA Grow helps teachers form a reflective practice habit that supports language development and builds responsive relationships. LENA Grow's **detailed child-level data** helps teachers **individualize instruction and increase conversational turns** with each unique child in pursuit of **DRDP measures**. As teachers begin to talk with each child rather than to the children, they learn how to adapt their interactions to support each child's learning and development. This change leads to more equitable language environments, accelerated language development (LENA Foundation, 2022a), higher child assessment and CLASS® scores (LENA Foundation, 2023a), and increased teacher job satisfaction and self-efficacy (LENA Foundation, 2023b). Just as DRDP serves teachers across a wide variety of settings, 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, and Early Head Start and Head Start programs.



Core Elements of LENA Grow

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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 DRDP 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.
- 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.
- 4. **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.

How LENA Grow Supports Desired Results Developmental Profile® (DRDP)

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LENA Grow supports the domains of the DRDP by improving the early talk environment for children, focusing specifically on the quantity and quality of adult-child interaction. Peer-reviewed research has linked conversational turns to brain structure (Romeo et al., 2018a), brain function (Romeo et al., 2018b; Huber et al., 2023), reading skills (Weiss et al., 2022), social-emotional development (Gómez Muzzio & Strasser, 2021), vocabulary (Duncan et al., 2022), and executive functioning (Romeo et al., 2021) early in life, as well as IQ scores and language skills in adolescence (Gilkerson et al., 2018). LENA Grow's detailed child-level data helps teachers individualize instruction.

DRD	P Domains and Measures	How LENA Grow Supports							
Domain	Measure Name								
Approaches to Learning - Self-Regulation	ATL-REG1: Attention Maintenance	ENA Grow increases interactive talk between teachers and the children which							
	ATL-REG2: Self-Comforting	supports children's approaches to learning and self-regulation. At each coaching session, teachers receive research-based curriculum materials that provide strategies on how to effectively engage young children during indoor and							
	ATL-REG3: Imitation								
	ATL-REG4: Curiosity and Initiative in Learning	outdoor play to promote children's curiosity, initiative, and creativity. The LENA Grow Room Report and Child Report highlight further engagement opportunities to aid teachers in targeting the times of the day and/or children to focus on interactive talk. As children begin to vocalize more during LENA Grow, they are better able to express their emotions and needs.							
	ATL-REG5: Self-Control of Feelings and Behavior								
	ATL-REG6: Engagement and Persistence								
	SED1: Identity of Self in Relation to Others	LENA Grow supports interactive talk between teachers and children, fostering positive, responsive adult-child relationships. Teachers receive research-based							
Social and Emotional Development	SED2: Social and Emotional Understanding	curriculum materials that provide ideas on how to effectively engage young children during times of the day that may be stressful for them, including persor care routines and transitions.							
	SED3: Relationships and Social Interactions with Familiar Adults	As children begin to vocalize more during LENA Grow, they are better able to express their emotions and needs. 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 Muzzio & Strasser, 2021). Furthermore, research has shown LENA Grow to have impacts on children's social and emotional health, including improved DECA (Devereux Early Childhood Assessment) scores (LENA Foundation, 2022b; LENA Foundation 2023d).							
	SED4: Relationships and Social Interactions with Peers								
	SED5: Symbolic and Sociodramatic Play								

Language and Literacy	LLD1: Understanding of Language (Receptive)	LENA Grow supports interactive talk among teachers and children, promoting anguage and literacy development. Teachers receive research-based curriculum							
	LLD2: Responsiveness to Language	materials that provide strategies on how to increase interactive talk by creating							
	LLD3: Communication and Use of Language (Expressive)	joint attention, increasing conversational turn-taking, and recasting, which in turn supports vocabulary development. Teachers receive coaching content that teachers them how scaffold children's language and literacy development. Areas							
	LLD4: Reciprocal Communication and Conversation	of focus include shared reading, early literacy, and songs & rhymes.							
Development	LLD5: Interest in Literacy	Children in LENA Grow classrooms have shown increases in TS GOLD® language							
	LLD6: Comprehension of Age- Appropriate Text	and literacy scores (Dynia, 2022; Heilmann & Moyle, 2022; LENA Foundation, 2023d) and LENA Developmental Snapshot scores (LENA Foundation, 2022a). In addition, peer-reviewed research has shown a link between increased							
	LLD8: Phonological Awareness	conversational turns to improved reading skills (Weiss et al., 2022) and improved vocabulary scores in preschool settings (Duncan et al., 2022).							
English Language Development	E.52LD1: Comprehension of English (Receptive English)	LENA technology is language agnostic and supports multi-language classrooms. The LENA Room and Child Reports help teachers recognize when a child is vocalizing and respond appropriately, providing strategies that support dual							
	ELD2: Self-Expression in English (Expressive English)	language learners. This is especially important considering recent research showing that dual language learners experience, on average, fewer							
	ELD3: Understanding and Response to English Literacy Activities	conversational turns than their monolingual peers (LENA Foundation, 2023c). LENA provides additional <u>support materials</u> to assist classrooms supporting dual language learners by offering LENA's 14 Talking Tips in twelve languages and providing guidance on utilizing the Talking Tips to <u>support children learning English</u> .							
	COG1: Spatial Relationships	Teachers receive research-based resources that provide strategies for increasing							
Cognition, Including Math and Science	COG2: Classification	interactive talk focusing on indoor play, outdoor play, mealtimes, and early math,							
	COG3: Number Sense of Quantity	presenting examples of opportunities to increase engagement around math concepts and problem-solving throughout the day. Teachers receive strengths-							
	COG5: Measurement	based coaching, review classroom and child level data, set measurable goals, and practice new strategies, promoting teachers' ability to scaffold children's cognitive skills.							
	COG6: Patterning								
	COG7: Shapes								

	COG8: Cause and Effect	Peer-reviewed research has linked conversational turns to brain structure (Romeo et al., 2018a), brain function (Romeo et al., 2018b; Huber et al., 2023), and executive functioning (Romeo et al, 2021) early in life, as well as IQ scores and language skills in adolescence (Gilkerson et al., 2018).						
	COG9: Inquiry Through Observation and Investigation							
Physical Development - Health	PD-HLTH6: Personal Care Routines: Hygiene							
	PD-HLTH7: Personal Care Routines: Feeding	LENA Grow helps teachers build interactive talk into care routines. Teachers receive research-based curriculum materials that provide ideas on how to effectively engage young children during times of the day. Areas of focus						
	PD-HLTH8: Personal Care Routines: Dressing	include personal care routines, transitions, mealtimes, and outdoor play.						
	PD-HLTH9: Active Physical Play							
	PD-HLTH10: Nutrition							
Visual and Performing Arts	VPA2: Music	Teachers receive research-based curriculum materials that provide strategies for increasing interactive talk through songs & rhymes and during indoor and						
	VPA3: Drama	outdoor play. The LENA Grow Room Report and Child Report highlight further engagement opportunities to aid teachers in targeting the times of the day and/or children to focus on interactive talk during dramatic play as well as in the form of songs and rhymes.						
	VPA4: Dance							

^{*}The Domain of History-Social Science is not explicitly addressed in the LENA Grow program.

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How LENA's 14 Talking Tips Support the Language and Literacy (LLD) Domain

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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). This chart dives deeper into the Language and Literacy Development domain to illustrate how LENA's 14 Talking Tips align with specific communication goals.

	14 Talking Tips													
Language and Literacy Development	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!
LLD 1: Understanding of Language (Receptive) Child understands increasingly complex communication and language.	√	√	√			√	√				√			
LLD 2: Responsiveness to Language Child communicates or acts in response to language and responds to increasingly complex language.	√		√					√			√	√		
LLD 3: Communication and Use of Language (Expressive) Child's communication develops from nonverbal communication to using language with increasingly complex words and sentences.		√	√					√		√	V		√	
LLD 4: Reciprocal Communication and Conversation Child engages in back-and-forth communication that develops into increasingly extended conversations.				√		√	√	√	√	√	√			

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