



Relationship to ZERO TO THREE Critical Competencies for Infant-Toddler Educators™

About LENA

LENA stands for Language ENvironmental Analysis. LENA is a national nonprofit on a mission to transform children's futures through early talk technology and data-driven programs. LENA's 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 LENA Grow

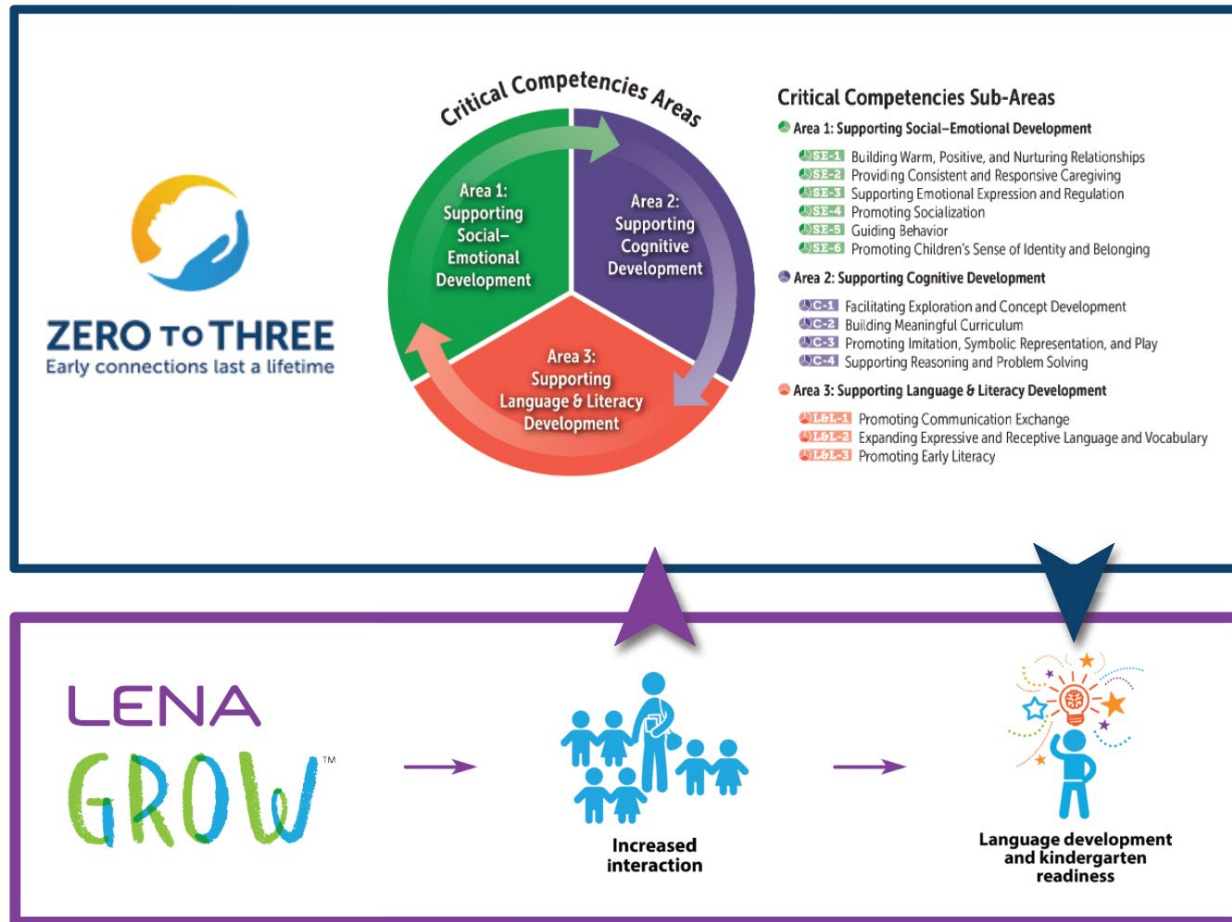
[LENA Grow](#) is an evidence-based professional development program that helps educators equitably improve classroom language environments in early learning settings, complementing ZERO TO THREE's Critical Competencies for Infant-Toddler Educators™ focus on infant and toddler development and commitment to achieving equity for every young child. 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 like the ZERO TO THREE Critical Competencies, 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.

How LENA Grow Supports the ZERO TO THREE Critical Competencies

This document illustrates the relationship between LENA Grow and the ZERO TO THREE Critical Competencies for Infant-Toddler Educators™ that can support the preparation and professional development of infant-toddler educators. The Critical Competencies describe what educators can do to make the most of teacher-child interactions, turning them into valuable learning opportunities. The Critical Competencies are specialized competencies which provide clear, concrete descriptions of specific educator behaviors and interactions that are known to support critical areas of development during a critical time of development, from birth to 3 years old. The Critical Competencies:

- Describe the recommended teaching methods and practices with easily understood guidance and examples.
- Feature considerations for working with high-needs populations and multi-language learners.
- Support educators who work in group settings (center-based and family child care homes) with infants, toddlers, or both.
- Build on professional criteria for the early childhood field (e.g., NAEYC, CDA, and more), are cross-walked with state core knowledge and competency areas, and align with observation tools (e.g., ITERS and CLASS) and the Head Start Early Learning Outcomes Framework.

Figure 1. LENA Grow 1 Supports the Critical Competencies Areas and Sub-Areas¹



The high-level crosswalks and information below outline the supportive relationship between LENA Grow and all three Critical Competencies Areas:

1. Supporting Social-Emotional Development.
2. Supporting Cognitive Development.
3. Supporting Language and Literacy.

Evaluative research on LENA Grow has shown positive child outcomes in each of these three areas. To effectively support infants' and toddlers' social-emotional, cognitive, and language and literacy development, 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.

Crosswalk of LENA Grow Core Elements to ZERO TO THREE's Critical Competencies Model

Critical Competencies Model (see Figure 1)	LENA Grow Professional Development Program: Core Elements						
	Research Base	Early Talk Strategies	LENA Room Reports	LENA Child Reports	Weekly Strengths-based Coaching	Weekly Goal Setting, Documentation, and Practice	Family Engagement
Area 1: Supporting Social-Emotional Development	√	√		√	√	√	
Area 2: Supporting Cognitive Development	√	√	√	√	√	√	√
Area 3: Supporting Language and Literacy	√	√	√	√	√	√	√

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, cognitive, and social-emotional development. Over 400 researchers and clinicians in over 40 countries have used LENA technology to study early language development.² The program itself has been validated by two independent evaluations.
2. **Early talk strategies:** At each coaching session, educators 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 Reports:** At each coaching session, educators 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 Reports:** At each coaching session, educators 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 educators. 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 educators.
6. **Weekly goal setting, documentation, and practice:** At each coaching session, the educator sets a specific and measurable goal for the coming week. The educator 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 educators to send home. Educators also spend one coaching session developing a family engagement strategy and making plans for how they will engage families in extending interactive talk into the home setting.

How LENA Grow Supports Each of ZERO TO THREE's Critical Competencies Areas

Area 1: Supporting Social-Emotional Development



“Early educators play an important role as part of a system of primary caregivers that includes parents, educators, and other key adults in the child’s life. This system of primary caregivers helps infants and toddlers form warm, positive, and nurturing relationships that are essential to learning. Early educators also help children learn to express and regulate emotions and socialize with peers.”

– page 21, [ZERO TO THREE Critical Competencies for Infant-Toddler Educators eBook](#)

These educator capacities are the focus of the Area 1 Critical Competencies. Through weekly strengths-based coaching, LENA Grow helps educators form a reflective practice habit that improves responsive caregiving and promotes continuous improvement. Through the five-week reflective feedback cycle, educators learn early talk strategies that strengthen teacher-child interactions, where a large part of children’s social-emotional learning occurs. Using Room and Child Reports, educators reflect on their own practice and each child’s experience, individualizing their strategies to best support each child’s development.

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.³ Further, research has shown LENA Grow has impacts on children’s social and emotional health, including improved DECA (Devereux Early Childhood Assessment) scores.⁴

LENA’s data indicates that even in classrooms and environments that are highly interactive, many children spend large portions of the day in relative silence or language isolation.⁵ 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.⁶ The 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 language isolation see the greatest gains in conversational turns. For instance, children who start the program experiencing fewer than 15 conversational turns per hour experience an average increase in conversational turn rates of greater than 50% by the end of the program.⁷

Relationships and continuity of care are key to supporting infant and toddler social-emotional development. LENA Grow has the potential to reduce educator turnover through increased educator self-efficacy and professional outlook.⁸ Survey data consistently verifies 90+ percent of educators 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.⁹

Area 2: Supporting Cognitive Development



“Infant-toddler educators are central to young children’s cognitive development because they provide the consistent and supportive relationships in which exploration and understanding of concepts are nurtured. Within consistent relationships infants and toddlers seek out experiences and interactions that spark their curiosity and wonder about the world.”

– page 41, [ZERO TO THREE Critical Competencies for Infant-Toddler Educators eBook](#)

These educator capacities are the focus of the Area 2 Critical Competencies. 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,¹⁰ brain function,¹¹ and executive functioning¹² early in life. fMRI imaging technology has visually shown the relationship between interactive language experiences and brain activity.

LENA Grow’s coaching sessions, room-level data reports, and individual child reports help educators focus on increasing the quantity of conversational turns in their classrooms. The reports show hour-by-hour data, helping educators focus on specific times of day to better understand how engaged children are during different activities. Educators can then adjust curricula, materials, and facilitation to enhance child engagement, optimizing cognitive development through the course of regular daily activities.

Area 3 Support Language and Literacy



“Educators are the key ingredient in a language-rich environment for infants and toddlers in group care settings. By narrating their own actions and those of young children, using natural conversations throughout the day to reinforce the back-and-forth exchange of information, and speaking in complete sentences, infant-toddler educators ensure that children are immersed in language. Infant-toddler educators ensure that this language immersion is in response to a young child’s primary language... Infant-toddler educators also use various types of talk, descriptive language, and varied vocabulary to provide foundational guidance and experience with language. Such an approach supports learning across all developmental areas and future subject-specific learning in preschool and elementary years.”

– page 56, [ZERO TO THREE Critical Competencies for Infant-Toddler Educators eBook](#)

These educator capacities are the focus of the Area 3 Critical Competencies. LENA’s strengths-based approach to improving language environments provides early childhood professionals a deeper understanding of the connections between language interaction, early brain development, and literacy skills. 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.¹³ Three research-based “active ingredients” power the 14 Talking Tips: creating joint attention, increasing conversational turn-taking, and then recasting. In addition, LENA’s Conversation Starters posters focus on shared reading, literacy, and songs & rhymes, as well as various classroom routines and indoor and outdoor play.

These practical strategies enhance the implementation of a variety of curriculum models. 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.¹⁴ In addition, peer-reviewed research has shown a link between increased conversational turns in preschool settings and improved vocabulary scores.¹⁵ Further peer-reviewed research has linked conversational turns during the first two years of life to emergent literacy skills at five years of age.¹⁶

Crosswalk of LENA's 14 Talking Tips to ZERO TO THREE's Critical Competencies 13 Sub-Areas

LENA's 14 Talking Tips are research-based strategies that inform LENA Grow's coaching sessions. These tips may reinforce educators' implementation of the Critical Competencies skill statements. The three tables below illustrate which Talking Tips relate to each of the Critical Competencies Sub-Areas.

Critical Competencies Sub-Areas		14 Talking Tips													
		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!
Area 1: Supporting Social-Emotional Development	SE-1. Building Warm Positive, and Nurturing Relationships.		✓	✓	✓	✓	✓	✓					✓	✓	✓
	SE-2. Providing Consistent and Responsive Caregiving						✓	✓			✓		✓		
	SE-3. Supporting Emotional Expression and Regulation	✓	✓			✓	✓					✓			
	SE-4. Promoting Socialization	✓				✓			✓	✓			✓	✓	✓
	SE-5. Guiding Behavior	✓	✓									✓		✓	
	SE-6. Promoting Children's Sense of Identity and Belonging		✓	✓	✓									✓	

14 Talking Tips

Critical Competencies Sub-Areas		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!
Area 2: Supporting Cognitive Development	C-1. Facilitating Exploration and Concept Development	✓	✓	✓			✓		✓	✓		✓	✓		
	C-2. Building Meaningful Curriculum		✓	✓									✓		
	C-3. Promoting Imitation, Symbolic Representation, and Play		✓				✓		✓	✓					
	C-4. Supporting Reasoning and Problem Solving	✓	✓				✓	✓				✓	✓		
Area 3: Supporting Language and Literacy Development	L&L-1. Promoting Communication Exchange		✓				✓	✓	✓	✓	✓		✓	✓	
	L&L-2. Expanding Expressive and Receptive Language and Vocabulary	✓	✓	✓	✓		✓	✓			✓	✓	✓		✓
	L&L-3. Promoting Early Literacy		✓	✓			✓	✓							

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