



Crosswalk with Indiana Early Learning Standards

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 teachers' professional development.

How LENA Grow Supports Indiana Early Learning Standards

[LENA Grow](http://www.LENA.org) is an evidenced-based professional development program that helps teachers equitably improve classroom language environments in early learning settings, complementing Indiana Early Learning Standards (Indiana Department of Education, 2023). To measurably 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. 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 Indiana Early Learning Standards serve 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.

How LENA Grow Works



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 more equitable 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.
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 Indiana Early Learning Standards

LENA Grow supports the foundations of Indiana Early Learning Standards 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.

Indiana Early Learning Standards		How LENA Grow Supports
Domains	Early Learning Standards	
English/ Language Arts	Standard 1: Communication Process	LENA Grow supports interactive talk among teachers and children, promoting the communication process and preliteracy skills. Teachers receive research-based curriculum materials that provide strategies on how to increase interactive talk by creating joint attention, increasing conversational turn-taking, and recasting, which in turn supports vocabulary development. Teachers receive coaching content that teaches them how to scaffold children's language and literacy development. Areas of focus include shared reading, early literacy, and songs & rhymes. Children in LENA Grow classrooms have shown increases in TS GOLD® language 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 conversational turns to improved reading skills (Weiss et al., 2022) and improved vocabulary scores in preschool settings (Duncan et al., 2022).
	Standard 2: Early Reading	
	Standard 3: Early Writing	
Mathematics	Standard 1: Numeracy	Teachers receive research-based resources that provide strategies for increasing interactive talk focusing on indoor play, outdoor play, mealtimes, and early math, presenting examples of opportunities to increase engagement around math concepts throughout the day. Teachers receive strengths-based coaching, review classroom and child-level data, set measurable goals, and practice new strategies, promoting teachers' ability to scaffold children's math skills.
	Standard 2: Computation and Algebraic Thinking	
	Standard 3: Data Analysis	
	Standard 4: Geometry	
	Standard 5: Measurement	

Student Wellbeing	Standard 1: Sense of Self	LENA Grow supports interactive talk between teachers and children, fostering positive, responsive adult-child relationships. 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 and transitions. Utilizing the research-based 14 Talking Tips, teachers support children in communicating about basic needs. 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) and TS GOLD® scores (LENA Foundation, 2022b; LENA Foundation 2023d).
	Standard 2: Self-Regulation	
	Standard 3: Conflict Resolution	
	Standard 4: Building Relationships	
Approaches to Play and Learning	Standard 1: Initiative and Exploration	LENA Grow supports interactive talk between teachers and children, fostering positive social interactions. During coaching sessions, teachers review classroom- and child-level data and set individualized goals that support children's approaches to play and learning. Teachers receive research-based curriculum materials that provide concrete strategies for supporting children's initiative, exploration, thinking, persistence, and attentiveness during indoor and outdoor play. 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).
	Standard 2: Flexible Thinking	
	Standard 3: Attentiveness and Persistence	
	Standard 4: Social Interactions	
Creative Arts	Standard 1: Music	Teachers receive research-based curriculum materials that provide strategies for increasing interactive talk through songs & rhymes and during indoor and 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.
	Standard 4: Dramatic Play	
Physical Health and Growth	Standard 1: Health and Safety	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 that include health and personal care routines. Utilizing the 14 Talking Tips, teachers support children in communicating about basic needs. Areas of focus include personal care routines, transitions, mealtimes, and outdoor play.
	Standard 4: Personal Care Routines	

*The Domains of Science and Social Studies are not explicitly addressed in the LENA Grow program.

How LENA's 14 Talking Tips Support the Language Arts and Literacy Standard 1 Communication Process

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 Development and Communication domain to illustrate how LENA's 14 Talking Tips align with specific communication goals.

Standard 1: Communication Process	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 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!
ELA 1.1 Demonstrates Receptive Communication	✓	✓	✓			✓	✓				✓			
ELA 1.2 Demonstrate Expressive Communication		✓	✓	✓			✓	✓		✓	✓		✓	
ELA 1.3 Demonstrate ability to engage in conversations				✓		✓	✓		✓	✓	✓		✓	

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