How does LENA SP work?

- After a day of recording, the compact LENA device uploads to special software that employs sophisticated algorithms to turn the recording into data, with a high degree of comparability to manual transcription.
- Recordings can be uploaded from multiple locations and audio is processed either locally or on secure cloud servers, increasing flexibility and reducing turnaround time.
- Data can be securely accessed from any computer or mobile device.
- Improved data-management and recorder-tracking features simplify logistics.
- Regular software updates ensure the software is operating with the highest level of fidelity.
- Online videos and printable handouts make it easy to teach families how to use LENA; resources are available in both Spanish and English.

What is LENA SP?

LENA SP provides a complete picture of a child’s audio environment, for researchers, speech-language pathologists, DHH workers, and others who need detailed, scientifically reliable speech-language measurements of children 2–48 months old. LENA recording technology captures a full day of language at a time, while the software system automatically analyzes and segments audio data. Flexible uploading and processing via a secure cloud-based service simplifies logistics of working with multiple children and sites and provides secure access from anywhere, 24/7. Data include validated percentile data on adult words, conversational turns (serve-and-return interactions), and child vocalizations. Audio recording may be retained at user option (in this version of LENA only), so professionals working under confidentiality requirements or informed consent agreements can perform more granular analysis where necessary.

Developed in collaboration with Colorado’s statewide program for children with hearing loss

For many years, the Colorado Home Intervention Program (CHIP) for children who are deaf or hard of hearing has used LENA technology to help their parent facilitators work with families all over the state. CHIP collaborated in the piloting of the cloud-based SP system. Dr. Christie Yoshinaga-Itano, long-time CHIP director and professor of Speech, Language, and Hearing Sciences at the University of Colorado (Boulder), says: “LENA SP has dramatically simplified our logistics and improved our ability to provide rapid feedback to families and early intervention providers, as well as enhancing our assessment process.”

The LENA System

LENA technology is the worldwide “gold standard” for reliably measuring early talk environments. It’s been called a “talk pedometer” because it gives feedback to help improve interactive (serve-and-return) talk, a key measure of language quality and driver of brain growth, according to the Harvard Center on the Developing Child. The LENA System comprises a compact, child-safe, digital recorder and clothing for convenient wear, software to turn the recording into data, and a secure web-based system for data-access and program management.
Caregiver report includes hourly breakouts showing which times during the day activities were most effective at increasing talk, as well as opportunities for improvement. Reports can be sent automatically.

Detailed reports provide more in-depth data for researchers and practitioners, including child vocalization analyses.

Reliable, detailed language environment data with convenient access and security

What can I do with LENA SP?

- See reports that provide a breakdown of a child’s audio environment, including the number of conversational turns and adult words, how much of the day the child was exposed to talk, and more.

- Access raw data and, at user option, high-quality audio files underlying the reports to perform analyses including transcription, language samples, spectral analysis, etc.

- Manage program data through LENA Online for scalability, access, and outcome-tracking.

- Access the Developmental Snapshot assessment, a validated 52-item caregiver-completed questionnaire that measures a child’s expressive and receptive language development.

- View AVA (Automatic Vocalization Assessment) scores, a unique measure of the similarity of a child’s patterns of vocalizing to those of a reference sample of typically developing children around the same age. Reported as an age-standardized score to facilitate tracking over time.