Now You’re Talking!
Coaching and Tracking Parent Engagement with LENA Technology
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Disclosures

• Financial
  – Employee of Mountain Lakes Early Intervention Program/Sound Start Babies

• Non-financial
  – ACI Alliance State Champion for NJ
Sound Start Babies

• NJ Early Intervention System approved provider
  – Home-based
  – Center-based
  – Various counties in Northern NJ
• Multi-disciplinary team
• Private funding
  – Tele-Reach Project
  – COMPASS Project using LENA
LENA Technology

• Word tracker – “fit bit for words”
• Recorders hold multiple days of data
• Upload to cloud for processing
  – Adult Words
  – Child Vocalizations
  – Conversational Turns
  – Audio Environment
  – Speech related measures
    • AVA – Automatic Vocal Assessment
    • Vocal Productivity
Challenges in Family Coaching

- Multiple Caregivers
- Subjective Input
- One Hour Sessions
COMPASS Project

- Grant-funded
- Participants
  - 23 children
  - Various SES, geographic area, & family dynamic
  - Mild to profound hearing loss
  - CIs, HAs, & Baha
Procedure

1. Baseline recording (3 non-consecutive days)
2. Coaching based on results
   – Time to implement strategy
3. Second recording
4. Coaching based on results

Continue the process, tracking sustainable change
Overcoming Obstacles

Various Speakers

16 Hour/Day Recording

Objective Information

Overcoming Obstacles
65% increased Adult Words

83% increased Conversational Turns

78% children increased Child Vocalizations
Benefits for CI Candidates

• NBHS giving us access to families sooner than ever before
• CI candidacy process occurs – but what can we do in the meantime?
• Post CI focuses
  – Audio environment
  – Language input
  – Parent engagement & turn-taking

With LENA technology, we can work on this NOW!
Quality vs. Quantity

- New research out of Harvard and MIT
  - Engagement = brain building
  - Talk “with” vs. “to”
- Executive Functioning (especially CI)
  - **Attention**: joint attention for conversation topics
  - **Working memory**: remembering what is said, eventually mapping out words/meanings
  - **Self-control**: turn-taking in conversation
Conversational Turn (CT) Count

• Measured by 3 turns
• Narrative
  – Quantitative number and percentile rank
  – Hour most CTs occurred
  – % of time child initiated (and norms)
www.soundstartbabies.com

Download COMPASS Project Resources

Thank you!