Integrating and sustaining evidence based practices in the community: A LENA Start™ Example

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Introduction

- A child’s language environment and experiences within the first three years of life greatly influence their language development trajectory: by the age of three, children from lower-income families hear 30 million fewer words compared to their peers from higher-income families (Hart & Risley, 1995).
- A multicomponent prevention approach should be used to maximize closing the word gap; one component is to provide services at the community level (Greenwood et al. 2017) to ensure that all parents and caregivers have the strategies and skills needed to create language rich environments.
- LENA Start™ is a 13-week parent training program that teaches parents and caregivers strategies that increase adult language input and parent-child interactions. Through a group format, parents learn about language and brain development, as well as activities and strategies that create a language rich environment.
- Programs like LENA Start™ will only be able to close the 30-million-word gap, if they are integrated and maintained within the community. Within the field of implementation science there are multiple models and frameworks (e.g. Fixsen et al. 2005; Damshroeder et al. 2009; Kilo 1998) on how to scale up practices, but the field is lacking ‘how to’ examples.

Study Purpose

Using a “Plan, Do, Study, Act” model the current study will 1) Evaluate the efficacy of LENA Start™ in increasing adult language input and adult-child interactions and 2) Evaluate if local Early Childhood Family Education (ECFE) programs would be a good fit for implementing LENA Start™

Methods

Participants and Setting

- Families were recruited through ECFE programs in 5 local school districts.
- Children aged 1–39 months were recruited to either participate in LENA Start classes or the comparison group.
- Parent educators were trained by LENA Start™ to implement the parent training program.
- To assess the feasibility and efficacy of LENA Start™ within ECFE, the program was implemented in a variety of different classes e.g. Teens and Spanish speaking classes.

Design

Two phase study over 2 years.
Phase 1. Implementation-only (Cohort 1): One-group pretest-posttest design
Phase 2. Evaluation phase (Cohort 2 & Comparison group): Nonequivalent comparison group design

Phase 1 and 2

- Adult word count (AWC) – measured with LENA recorder
- Conversational turns (CT) – measured with LENA recorder
- LENA Snapshot – 52 parent questionnaire.

Demographic survey

Phase 2 only

- MacArthur Bates Communicative Development Inventory
- 6-minute video observation of parent-child interactions

LENA Start™ Intervention

- 13 weekly parent training sessions implemented by parent educator.
- Combination of PowerPoint presentation, videos, and group sharing.
- Families receive weekly shared reading book and are encouraged to create shared reading opportunities at home.
- LENA Start™ 1.0 – 8 sessions with optional ‘graduate sessions’ afterwards
- LENA Start™ 2.0 – switched to 2.0 (13 week format)

Preliminary Descriptive Results

- LENA Start™1.0 vs 2.0 Timing of program
  - Length of program: LENA Start™ 1.0 and 2.0 lasted 8 and 13 weeks respectively.
  -家长: 8 sessions vs 13 weeks.
  - Children in the LENA Start™ groups saw a 6 month growth in 13 weeks compared to 3 months for the comparison group.

Selected References

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