

Background

- ♦ **The problem:** LENA automated measures do not provide information about many areas that could be positively affected by LENA Start
- ♦ **Parent participants** tell us they are observing changes in their child and families: they are more confident, more connected to community, etc.
- ♦ **Goal:** To develop a short survey that will measure pre-post changes in domains such as parenting self-efficacy, knowledge of child development, parental stress, etc.

Questionnaire Development

- ♦ **Step 1: Identify Content**
 - ♦ Reviewed LENA Start manual to identify domains targeted but not directly measured in program
 - ♦ Reviewed parent questionnaires & observational tools focused on: parenting self-efficacy, social support, parent-child interactions, knowledge of development, parental responsiveness, parental stress, reactivity/distress, parental involvement
 - ♦ Considered feedback from parents about their perceptions of changes (e.g., interviewed coordinators about anecdotal reports, reviewed parent feedback questionnaires, testimonial interviews, etc.)
- ♦ **Step 2: Crafted questions** with the following requirements:
 - ♦ Must be short—limited the # of items to 1 page
 - ♦ Need variation—created questions that were not biased towards elevated responses on pre-test
 - ♦ Simple scoring—used easy nominal scoring scale

Pilot Testing

- ♦ **Version 1**
 - ♦ 18 questions, N=36 completers
 - ♦ Literacy level too high, too long
 - ♦ 11 items showed significant elevations pre-post
- ♦ **Version 1.5**
 - ♦ 13 questions, N=42 completers
 - ♦ Lower literacy level, shorter
 - ♦ 8 items showed significant elevations pre-post

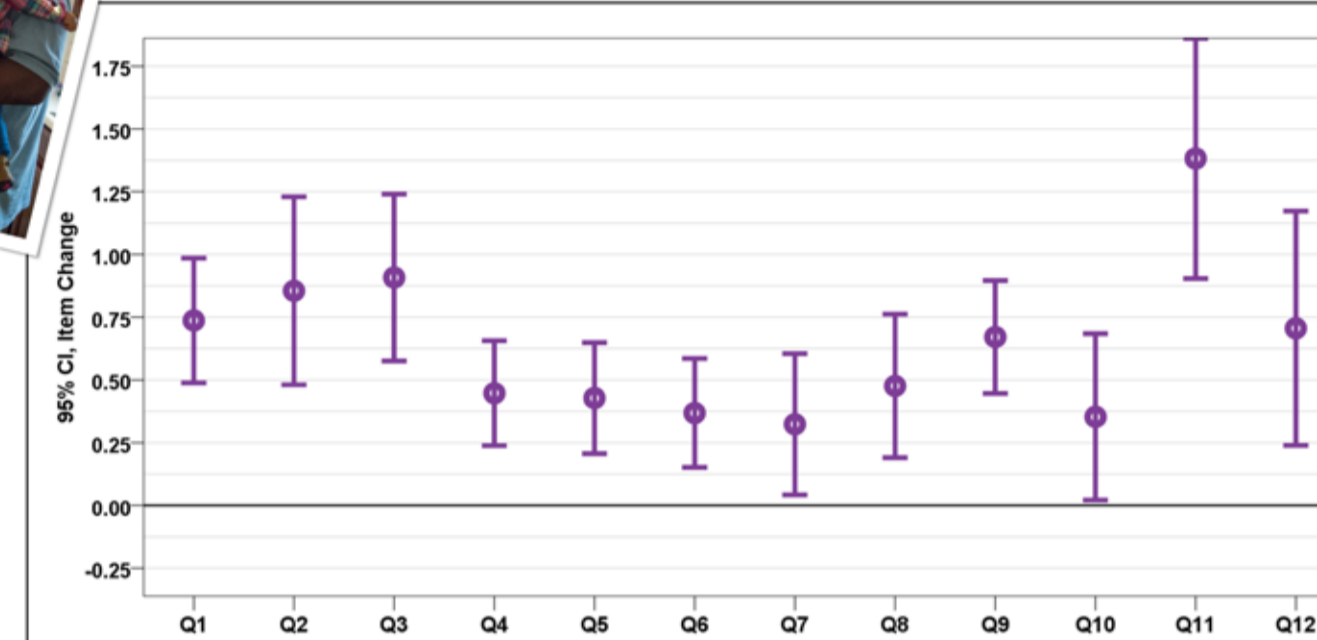


Final Version 2.0

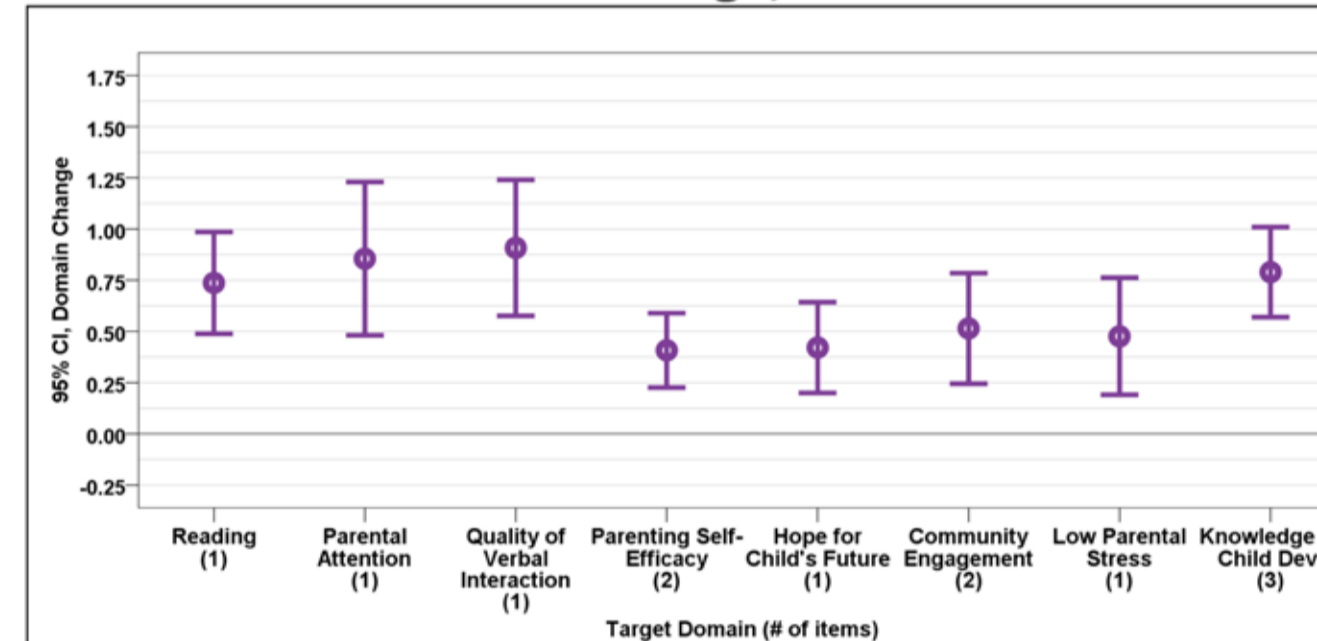
- ♦ Included 12 of the questions that showed significant pre-post increases from 2 pilots
- ♦ Reading level was grade 5.6 according to Felsch-Kincaid reading level scale
- ♦ **Domains:**
 - ♦ **Direct Targets:**
 - 1) Knowledge of child development
 - 2) Book reading
 - 3) Quality of verbal interaction
 - 4) Parental attention
 - ♦ **Indirect Targets:**
 - 1) Parenting self-efficacy
 - 2) Hope for child's future
 - 3) Community engagement
 - 4) Parental stress

Results

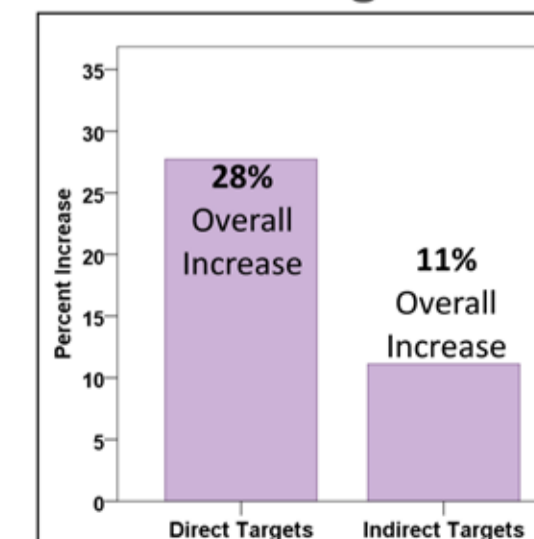
Item Level Change, Pre-Post



Domain Change, Pre-Post

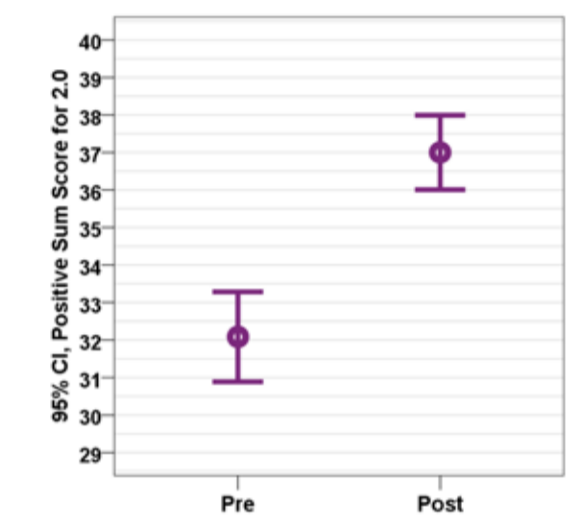


Percent Increase in Target Areas, Pre-Post



Total Score, Pre-Post

- ♦ **15% increase in total score***
 - ♦ Paired t-test showed overall change was statistically significant (+4.9, SD 4.7, p<0.001)
- *Total score was calculated using the sum of 9 questions common to all survey versions



- ♦ **84%** of respondents showed increases in total scores
- ♦ **Effect size of 1.02**

Conclusions

- ♦ Participants demonstrate significant elevations in positive parenting perceptions and interactive behaviors after participating in LENA Start
 - ♦ **Reading:** 29% increase
 - ♦ **Parental Attention:** 31% increase
 - ♦ **Quality of Verbal Interaction:** 30% increase
 - ♦ **Parenting Self-Efficacy:** 10% increase
 - ♦ **Hope for Child's Future:** 10% increase
 - ♦ **Community Engagement:** 14% increase
 - ♦ **Low Parental Stress:** 12% increase
 - ♦ **Knowledge of Child Development:** 22% increase