

Rethinking School Readiness

LENA®

October 30, 2024



**The Youngest Pandemic
Children Are Now in School,
and Struggling**

With Kindergarten Readiness on the Decline,
Some Districts Try New Interventions

Teachers: Kindergarten readiness
tests are time-consuming, cut into
instruction

Pandemic babies and toddlers struggle
in school, research suggests

Navigating the 'big little leap' to kindergarten

Early Talk = School Ready

Some Context

Scott McConnell
Professor Emeritus,
University of Minnesota



UNIVERSITY OF MINNESOTA
Driven to DiscoverSM

IGDILAB

Opportunities and Challenges in Thinking about School Readiness

- The Opportunity
 - Giving clear targets to consider in preschool years
 - A basis for program design and improvement
- The Challenges
 - Historical context
 - Developmental view
 - Situational variation
 - Subgroup variation



What is “School Readiness?”

- An empirical quagmire
- What defines *school readiness*?
 - A set of discrete skills and characteristics?
 - A general condition or set of attributes?
 - An outcome?
 - An interaction?
 - A contextually or geographically determined characteristic?
 - A theoretical and empirical apparition?



Any and all of these factors!

A Functional View

- School readiness is best considered...
 - A varied and complex set of child skills and characteristics
 - Something that develops over time, and is not a singular “state” or outcome
 - Adaptive to and adapted by the “school” that wants a child to be ready
- **Let’s think of it as a combination of factors that, together, set the occasion for an individual’s success in kindergarten and beyond**



A Functional View

- In other words, **school readiness is both a set of skills and behaviors and a child's ability to negotiate and take advantage of learning in a new setting**



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<https://www.flickr.com/photos/mazboot/3091819428>

Unpacking the Functional View

Skills and Behaviors

- Vocabulary
 - Basic Facts, letters, numbers, colors, etc
- Morphosyntactic language skills
- Interaction
- Problem solving
- Attention



Ability to Negotiate and Take Advantage of New Settings

- Listening
- Asking
- Negotiating
- Waiting
- Persevering

Unpacking the Functional View

Skills and Behaviors

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Ability to Negotiate and Take Advantage of New Settings

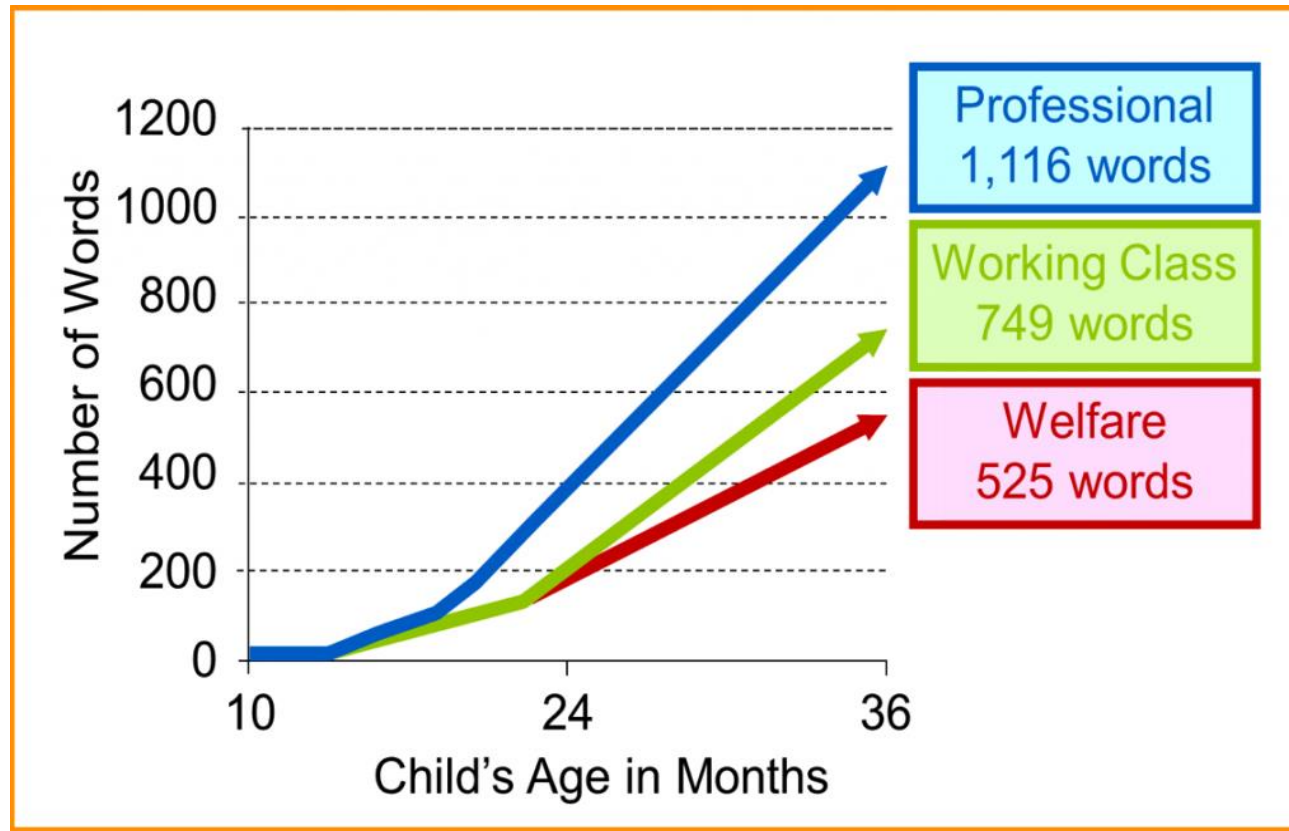
- Listening
- Asking
- Negotiating
- Waiting
- Persevering

Only some of these are “skill-specific” ...



What Does This Mean for Early Talk?

- We know that language development is built on conversational turns!



Adapted from Hart and Risley, 1995



What Does This Mean for Early Talk?

- We know that language development is built on conversational turns!
- We know what happens when children and adults talk!
 - Vocabulary growth → knowledge acquisition
 - Increased complexity of receptive and expressive language
 - Self-regulation
 - Self direction



The Net Effect – Early Talk and School Readiness

- Early talk, and the resulting language development, is ripe with benefits
 - Specific skill development
 - Overall interaction capacity
 - Experience with, and benefits from, interaction
- General outcome of improved language and language interaction has its own benefits
- “Intentional” skill acquisition is also needed to meet demands of future situations and standards



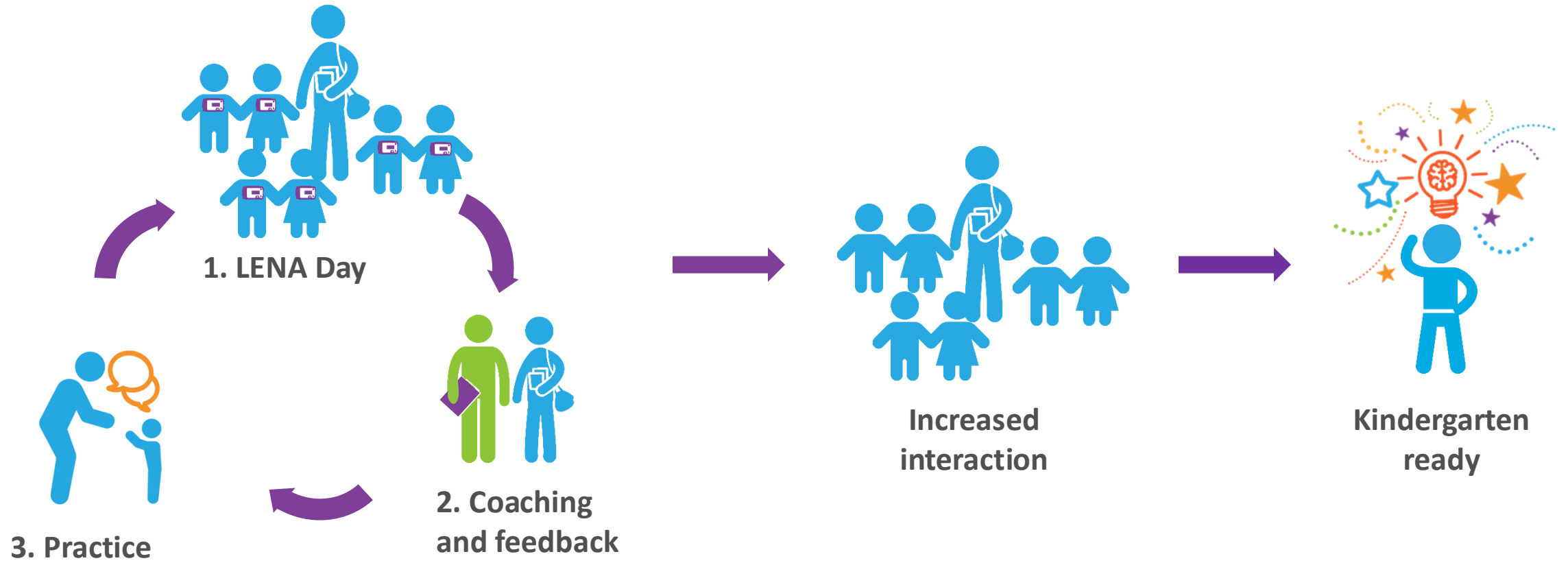
**In short, early talk and
all that produces it and
comes with it can be a
key factor in promoting
school readiness**



Central Question:

Do children who participate in LENA Grow begin kindergarten more ready (i.e., have higher scores on their kindergarten screener) than children who do not participate in LENA Grow?

How it works

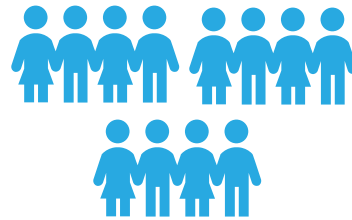
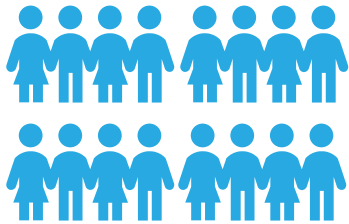


How do we answer this question?

Two Groups of Children

Create Matched Samples

Did not participate
in LENA Grow
before K



LENA
GROW[®]

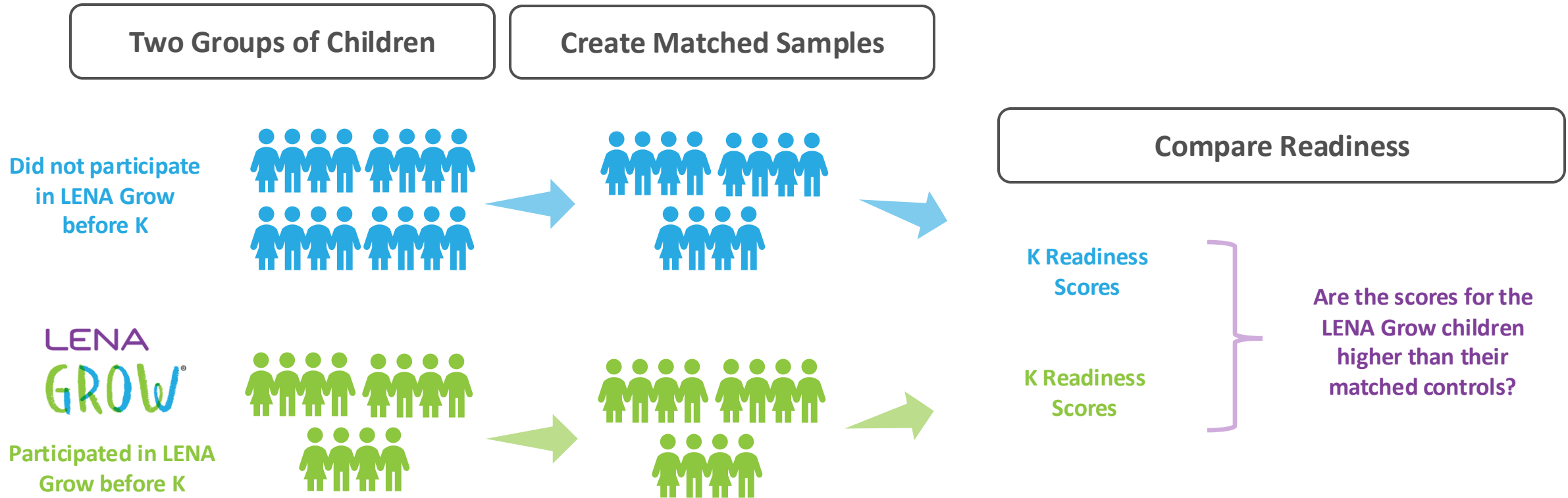
Participated in LENA
Grow before K



Samples balanced with respect to:

- ✓ Gender
- ✓ Race/ethnicity
- ✓ Socio-economic status
- ✓ Special ed status (when possible)
- ✓ Language i.e., English proficiency (when possible)
- ✓ Preschool experience (when possible)
- ✓ Elementary school (when possible)

How do we answer this question?



Research Partner: Cherokee County



Location

Cherokee County,
South Carolina

Readiness Measure

Kindergarten Readiness
Assessment (KRA)

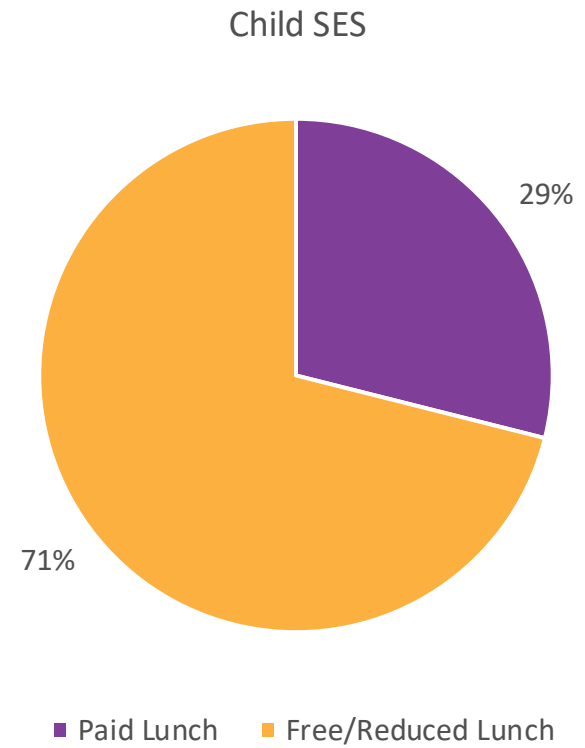
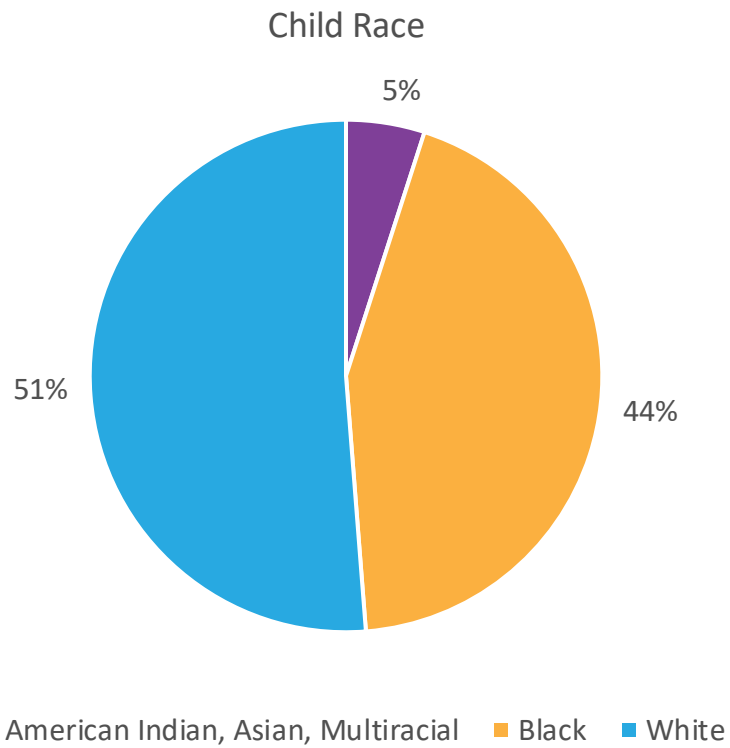
Sample

121 LENA Grow
204 Matched Controls

**When did children
experience Grow?**

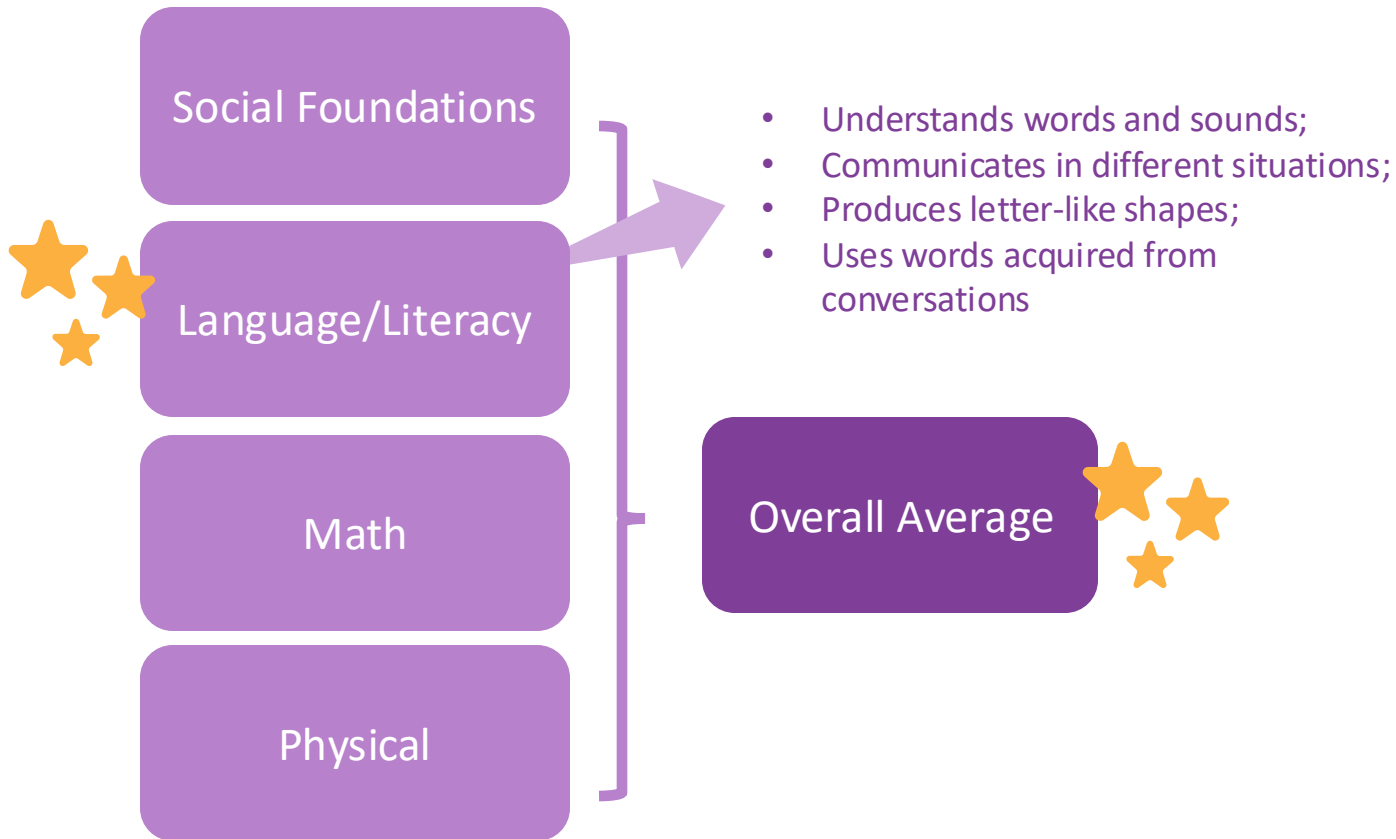
During Preschool/Pre-K
1-2 Years before K

Cherokee – Grow Demographics



Cherokee County Assessment: KRA

Fours Domains



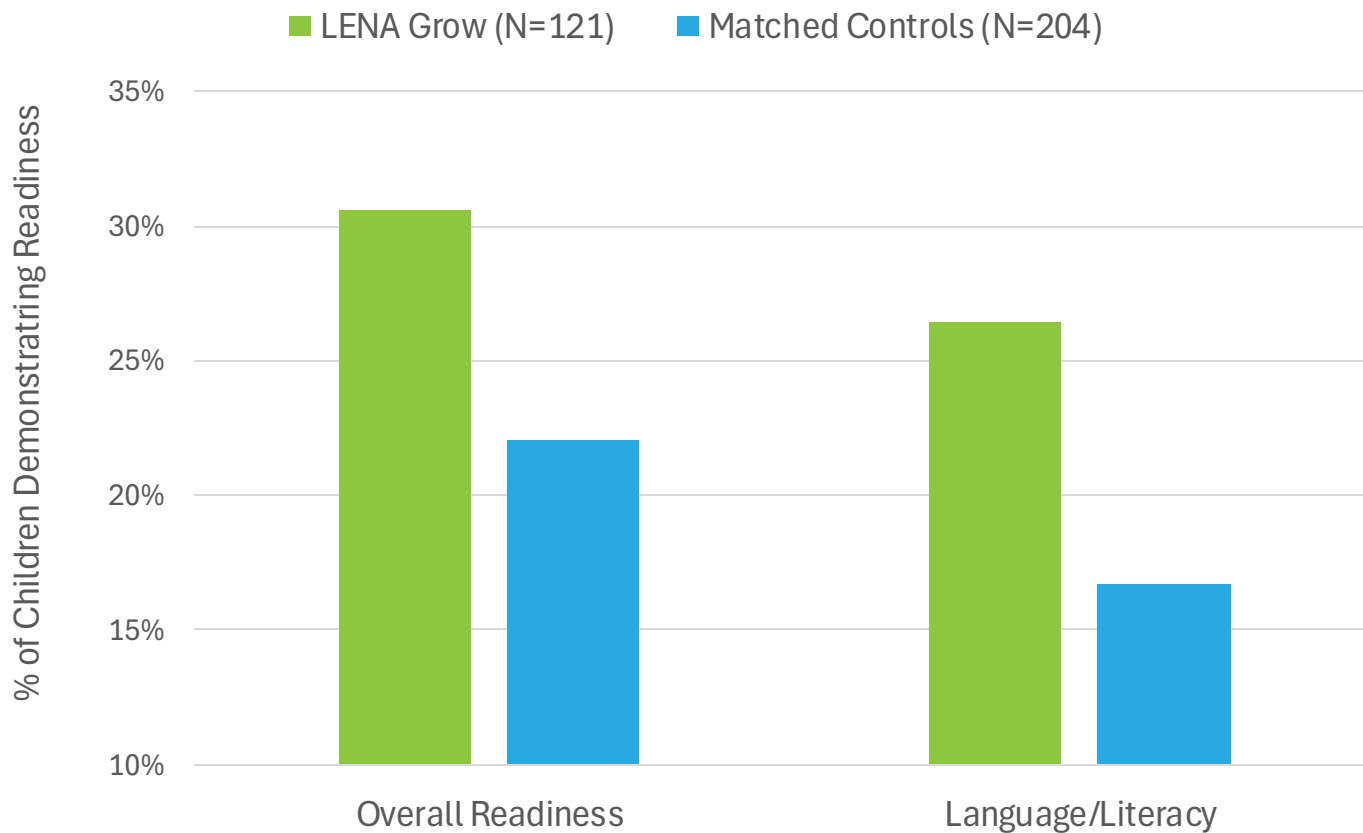
Scale



Readiness Categorizations



Cherokee County KRA Results



Odds ratio of LENA variable from logistic regression: Overall = 1.56 (p = 0.089); Lang/Lit = 1.79 (p = 0.035)

Compared to controls, LENA Grow participants were:

- **1.6x more likely** to demonstrate overall readiness
- **1.8x more likely** to demonstrate language and literacy readiness



Takeaway: LENA Grow increases children's school readiness

Research Partner: Henderson County



Location

Cherokee County,
South Carolina

Henderson County,
Kentucky

Readiness Measure

Kindergarten Readiness
Assessment (KRA)

Brigance

Sample

121 LENA Grow
204 Matched Controls

127 LENA Grow
127 Matched Controls

**When did children
experience Grow?**

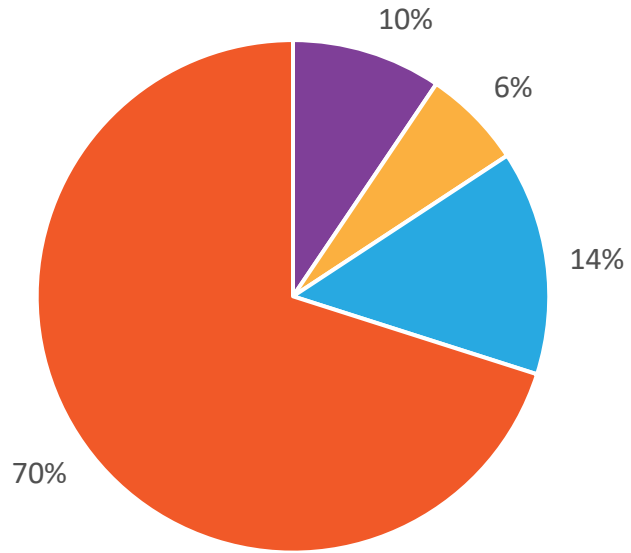
During Preschool/Pre-K
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1-2 Years before K



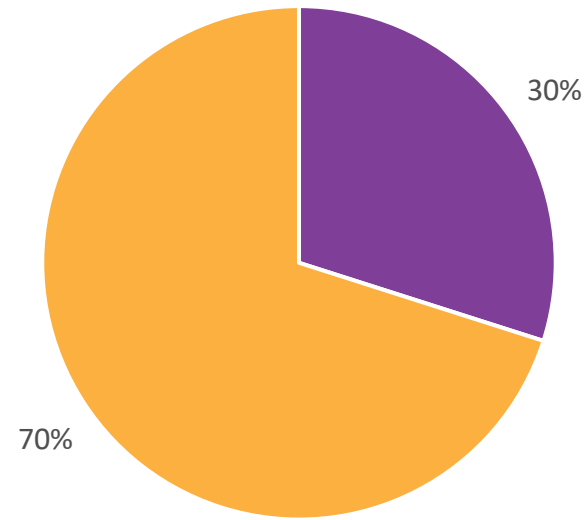
Henderson – Grow Demographics

Child Race/Ethnicity



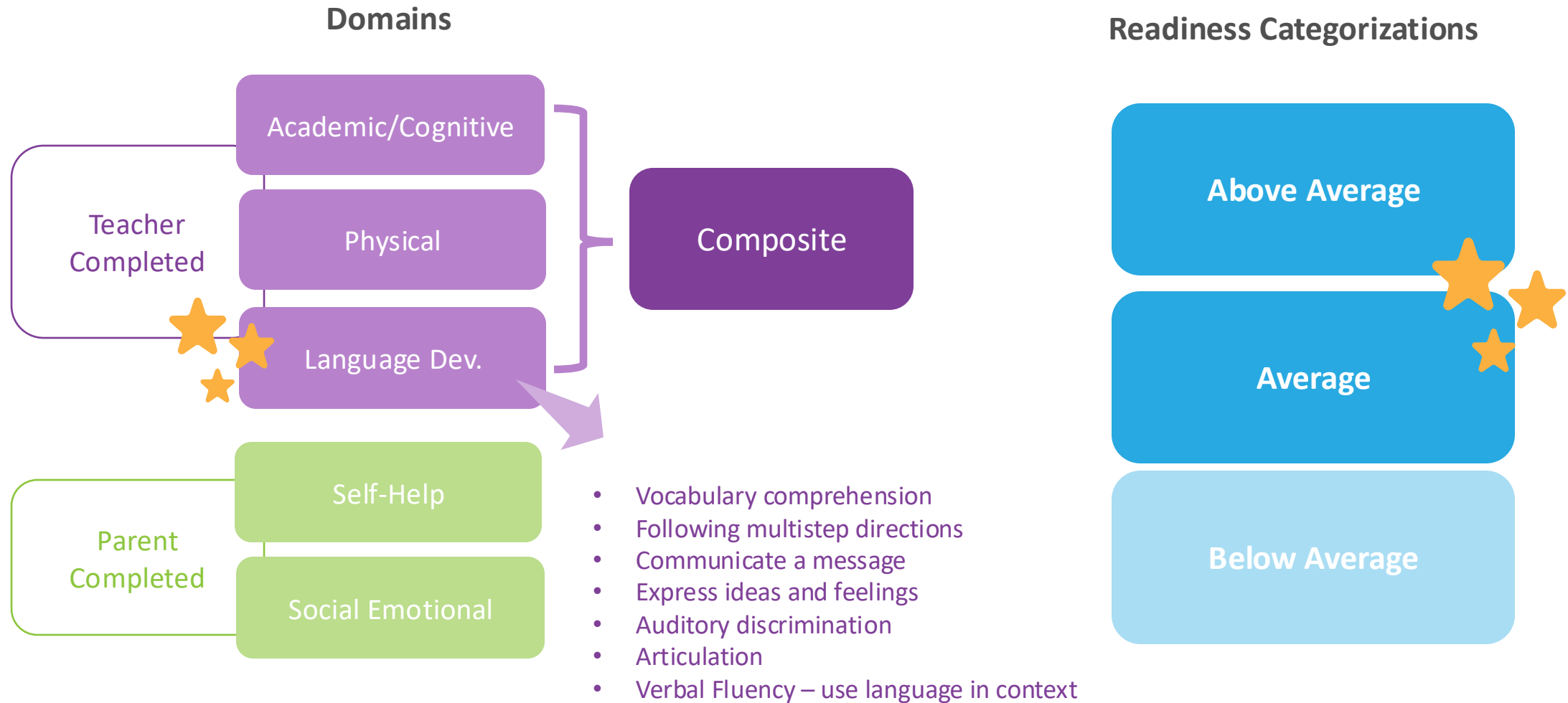
■ African American
 ■ Hispanic
 ■ Multiracial
 ■ White

Child SES



■ Paid Lunch
 ■ Free/Reduced Lunch

Henderson County Assessment: Brigance





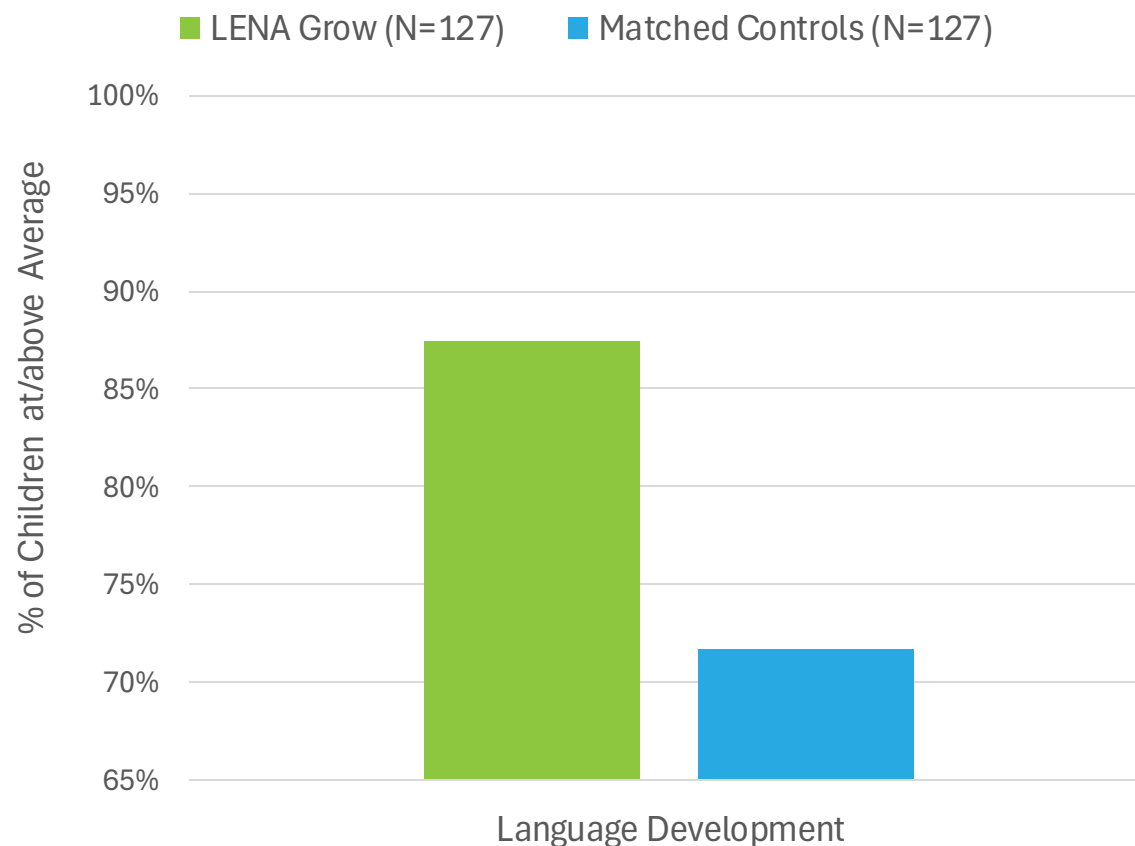
Henderson County Brigrance Results

Compared to controls, LENA Grow participants were:

- **2.7x more likely** to be at or above average in language development at the start of K



Takeaway: LENA Grow increases children's school readiness



Exponentiated odds ratio of LENA variable from logistic regression: 2.74 (p = 0.002)

Research Partner: Porter-Leath



Location

Cherokee County,
South Carolina

Henderson County,
Kentucky

Memphis/Shelby County,
Tennessee

Readiness Measure

Kindergarten Readiness
Assessment (KRA)

Brigance

i-Ready

Sample

121 LENA Grow
204 Matched Controls

127 LENA Grow
127 Matched Controls

33 LENA Grow
99 Matched Controls

**When did children
experience Grow?**

During Preschool/Pre-K
1-2 Years before K

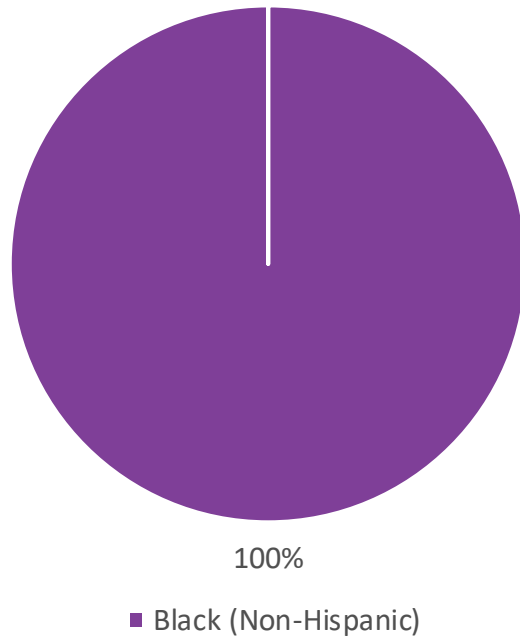
During Preschool/Pre-K
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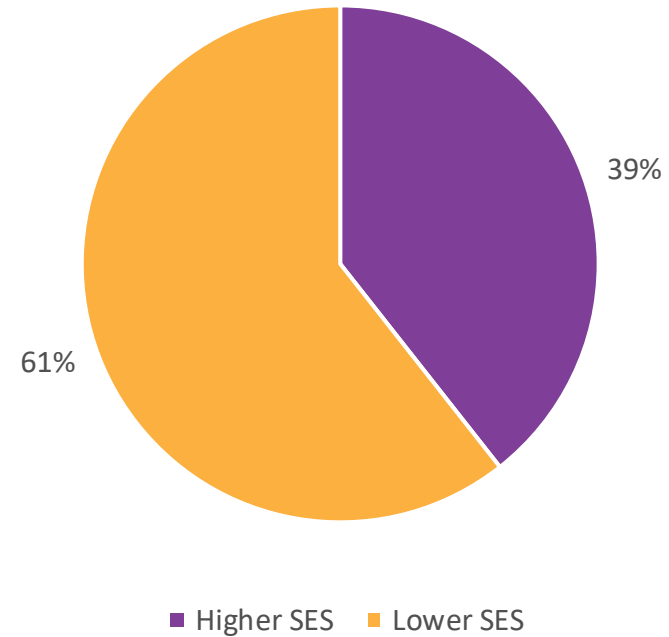
Porter-Leath – Grow Demographics



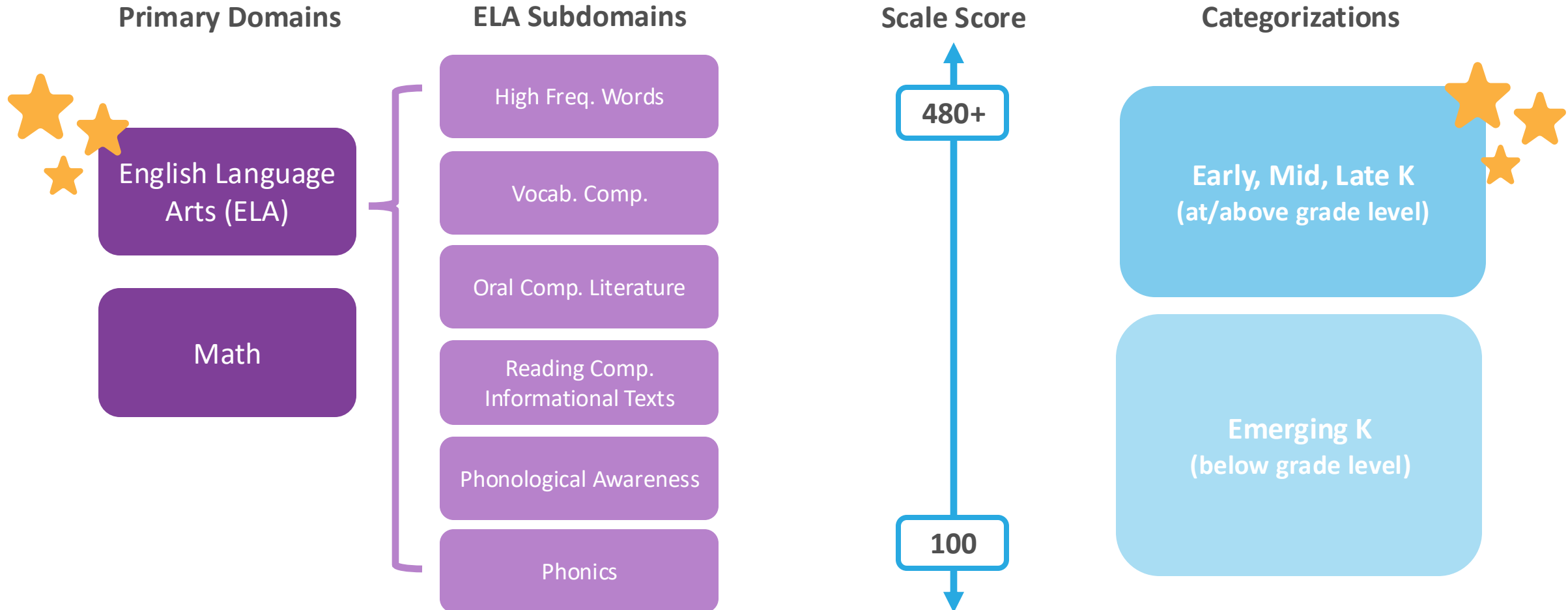
Child Race/Ethnicity



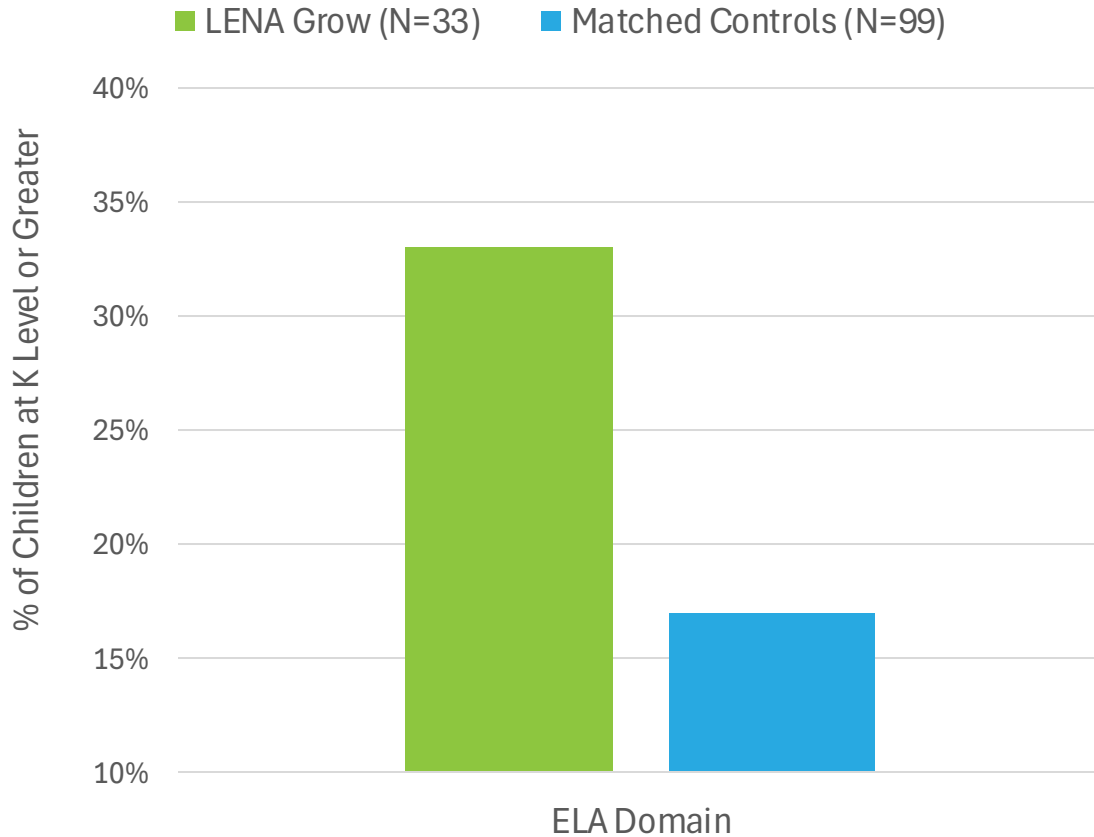
Child SES



Memphis County Assessment: i-Ready



Porter-Leath i-Ready Results



Exponentiated odds ratio of LENA variable from logistic regression: 2.41 (p = 0.053)

Compared to controls, Porter Leath LENA Grow participants who participated in the program between 3-5 years old were:

- **2.4x more likely** to be at K level with respect to English Language Arts



Takeaway: LENA Grow increases children's school readiness

LENA Grow increases children's kindergarten readiness

Across three different districts and three different kindergarten readiness measures, LENA Grow participants were significantly more likely to be on track at the start of kindergarten than their non-LENA peers.

Download our free resources!

Early Talk = School Readiness

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