Culturally Responsive Approaches to Early Communication and Literacy

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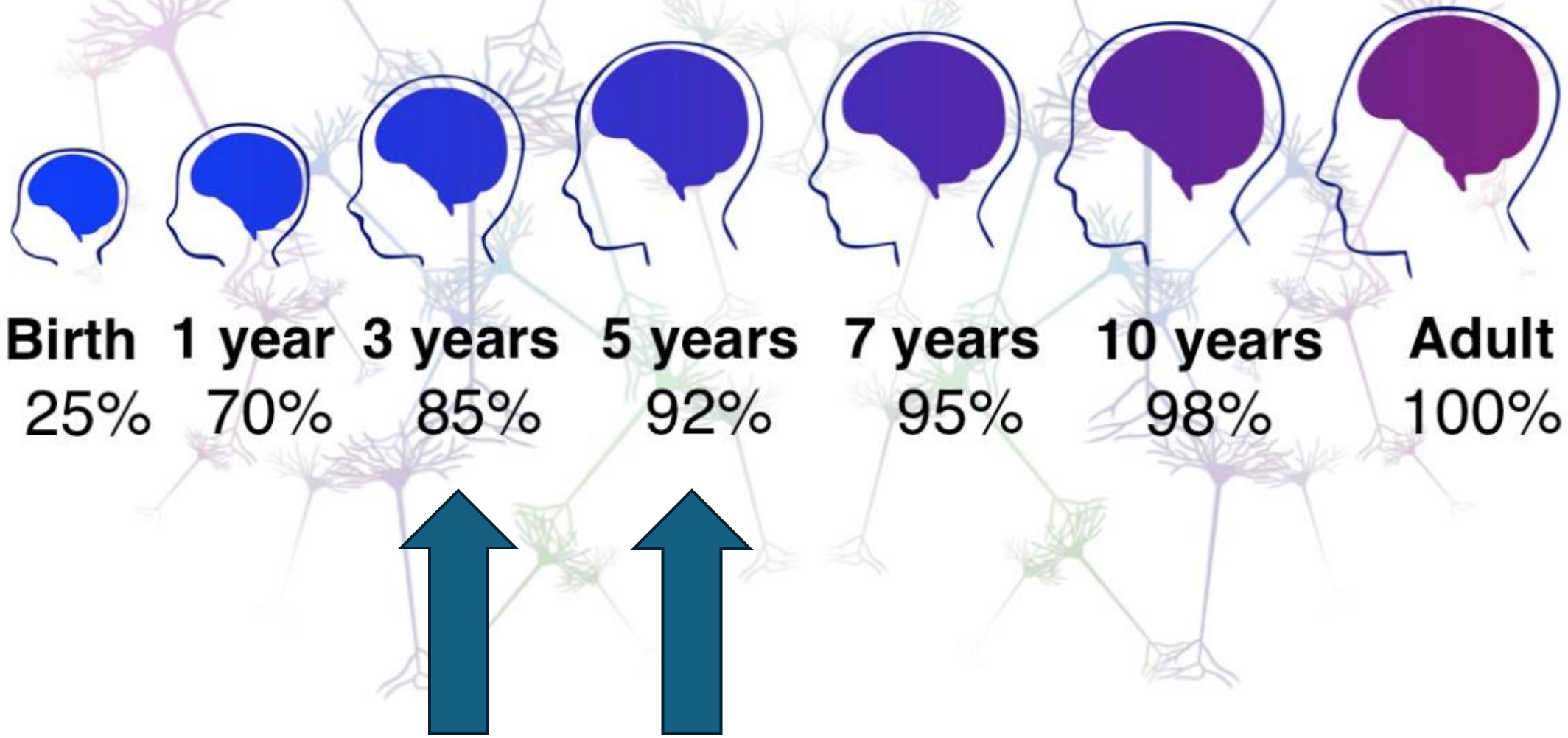
Speaker Disclosures

- Caitlin Raaz is an Assistant Professor of Communication Sciences and Disorders at the University of Northern Colorado where she receives a salary. She is also the founder of Tutela Institute which is the small business that we will be discussing in this presentation.

- Dannon Cox is an Assistant Professor of Community Health Education for the Colorado School of Public Health at UNC where he receives a salary.

Agenda

- Importance of Early Intervention
- Barriers to Access
- Addressing Rural Disparities
- Our Approach
- Curriculum Snapshot
- Pilot Study Outcomes
- Interactive Activities and Discussion


Birth
25%
1 year
70%
3 years
85%
5 years
92%
7 years
95%
10 years
98%
Adult
100%

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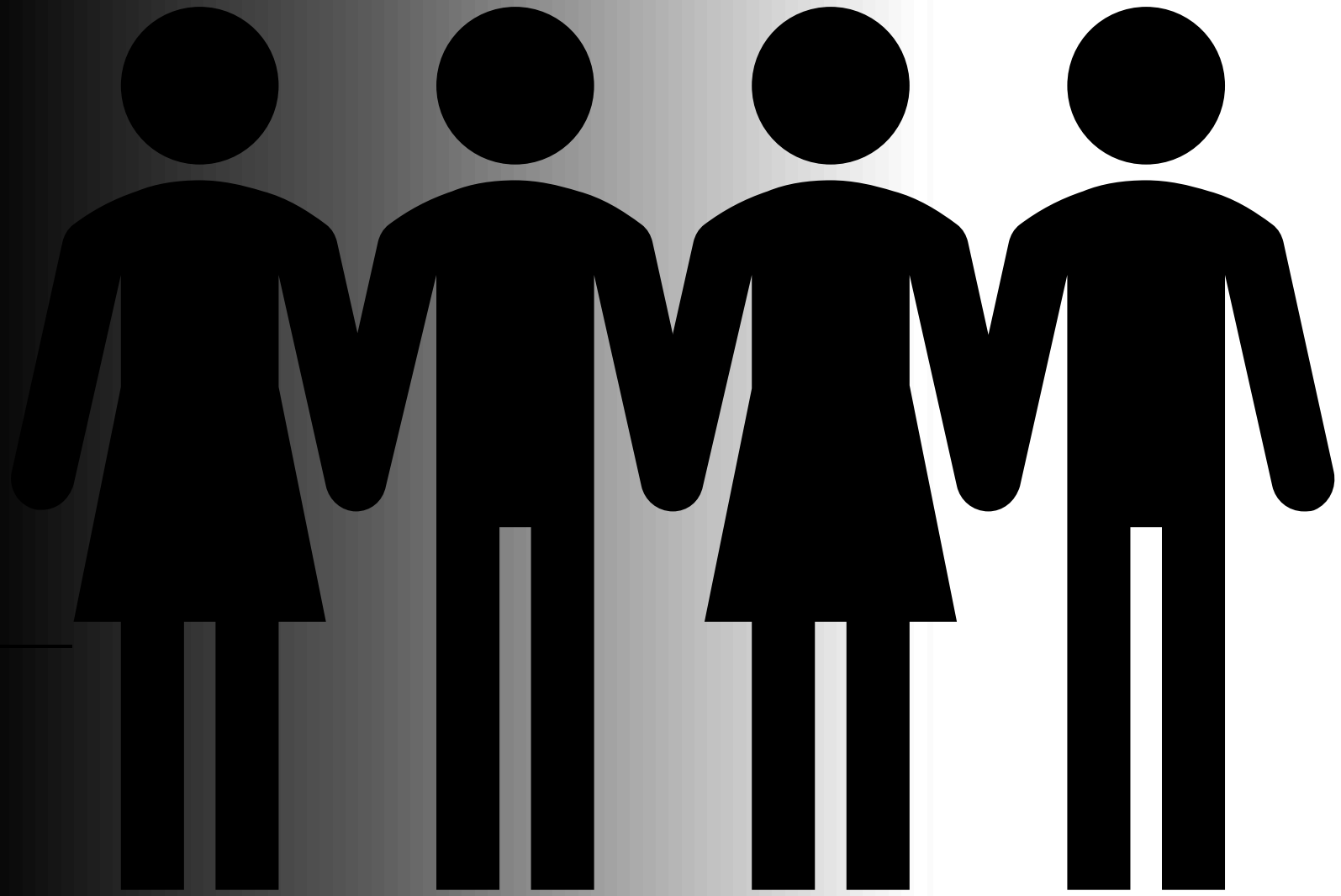
Waitlists are common!



LIMITED ACCESS TO CARE

- Healthcare and education systems across the nation are dealing with a massive shortage of providers.
- Widening gap between the racial, cultural, and linguistic diversity of the US and the field of speech-language pathology.

There is a critical and unmet need to improve access to early intervention in underserved communities

Since 2019 there has been a **136%** increase in speech and language diagnoses in children ages 0-2 years (Khan et al., 2023).

Trends in Developmental Delays

- Between 2019 and 2021, developmental disabilities rose from 7.4% to 8.6% in children ages 3–17 (CDC, 2023)
- Speech/language disorder diagnoses more than doubled during the pandemic (Bartelt et al., 2024)
- Speech delays in toddlers jumped from 9% to ~17% and remain high post-pandemic (Khan et al., 2023)
- Service access **disparities**:
  - 60% of white children received services vs. 47% of Hispanic, 46% of Black children (NIDCD, 2023)

Trends in Literacy Development

By fourth grade, only 32% of U.S. students read proficiently, with rural students disproportionately affected *(National Assessment of Educational Progress, 2025; Daniel & Barth, 2023)*

In Colorado, the percentage of kindergarteners meeting literacy benchmarks fell from 74% in 2022 to 66% in 2024 (Colorado Children's Campaign, 2024)

64 Total Counties

17 Urban

24 Rural

23 Frontier

12%

CO population consists of rural residents

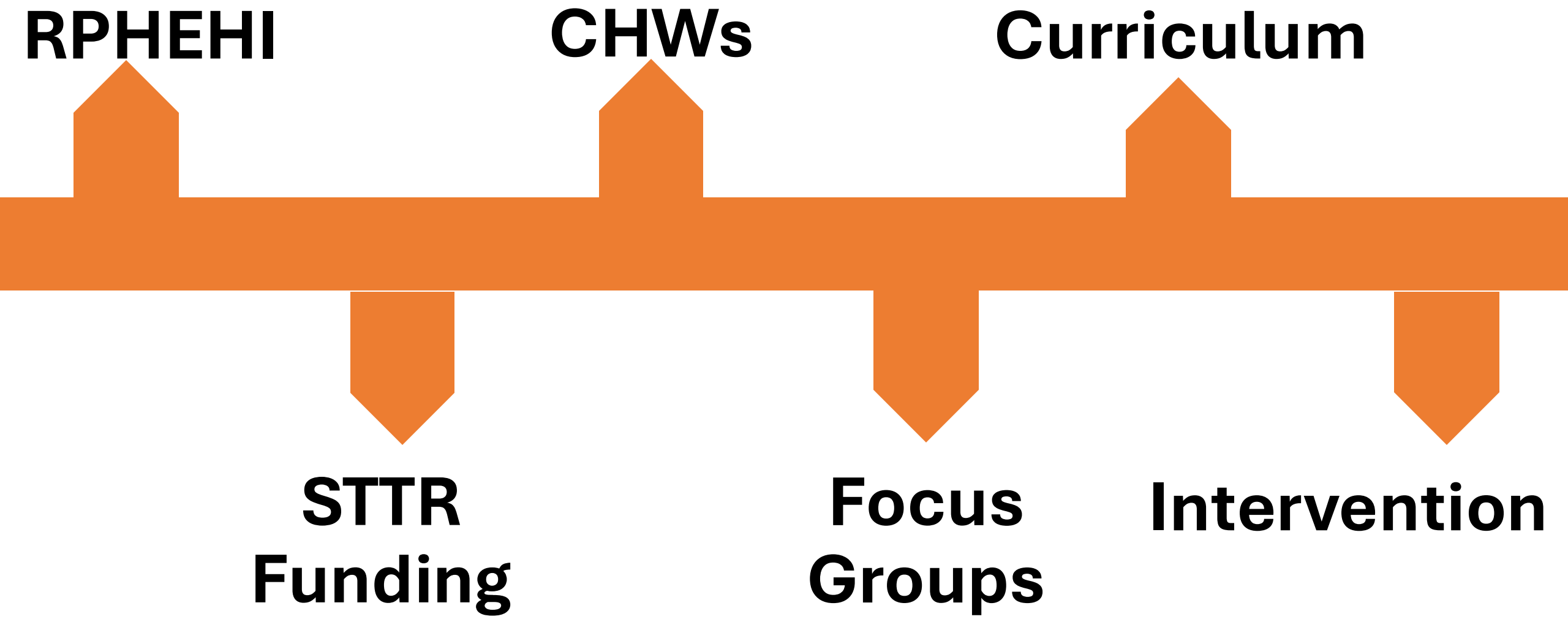
Shortages

Early Childhood Education **21%**

48% Schools reporting SLP hiring challenges

Rural counties designated as Health Professional Shortage Areas **77%**

Approach


RPHEHI
CHWs
Curriculum
STTR Funding
Focus Groups
Intervention

Community Partner

BabyBearHugs
Empowering Families

- Supports expectant parents and families with children ages 0–3 in 9 counties
- Offers free parenting education, resources, and emotional support
- Connects families to vital community services across Eastern Colorado
- Promotes healthy child development and strong adult-child relationships
- Aims to build resilient families and future community contributors

Novel Service Delivery Model

Provider Training

- Task-shared care
- Curated Curriculum

Digital Delivery System

Caregiver Content

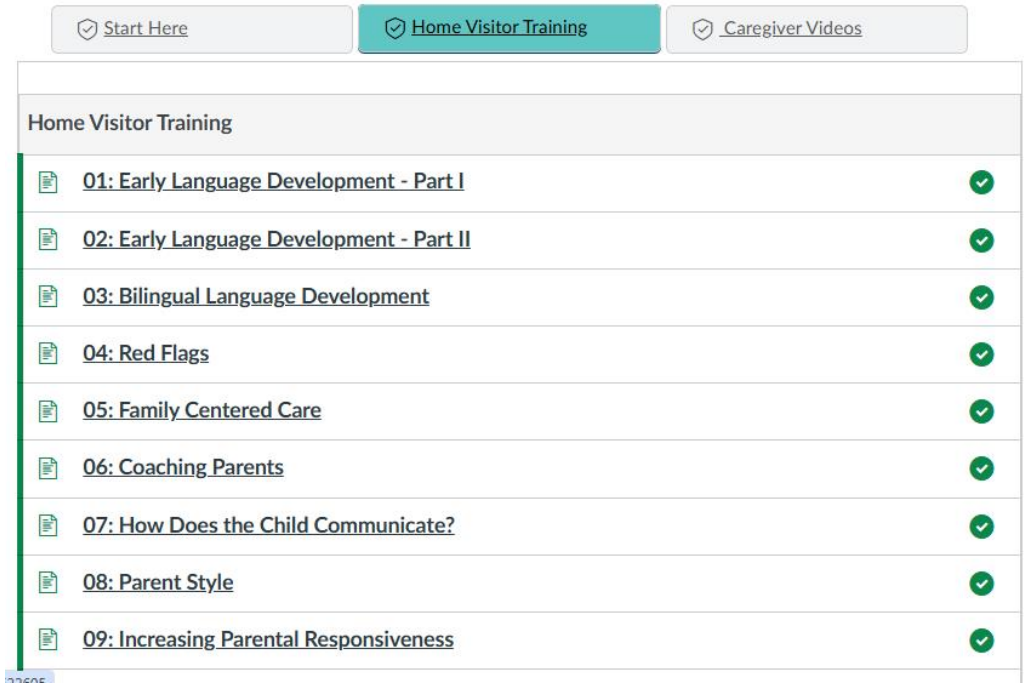
- Culturally tailored (English/ Spanish)
- Accessible

Phase 1 Objectives

Objective 1: Demonstrate the feasibility of developing culturally and linguistically tailored content through a cost-effective and replicable content creation process.

Objective 2: Demonstrate the feasibility of developing a comprehensive virtual training program for CHWs to provide tailored content for parents.

Objective 3: Prove the feasibility and acceptability of the proposed service delivery model via a pilot study.



NOVEL SERVICE DELIVERY MODEL

- Home visitor training on Canvas
- Tablets delivered to families
- **Leveraging the power of technology**

Media Content

Production (Talus)

- 3-camera setup
- 1-day lecture
- 1-day demonstration
- Lesson checklist
- English / Spanish

Post-Production

- Color correction
- Editing support
- Hard drive access
- 61 videos (21 CHWs, 26+14 Caregivers)

Course Content

- Course inventory

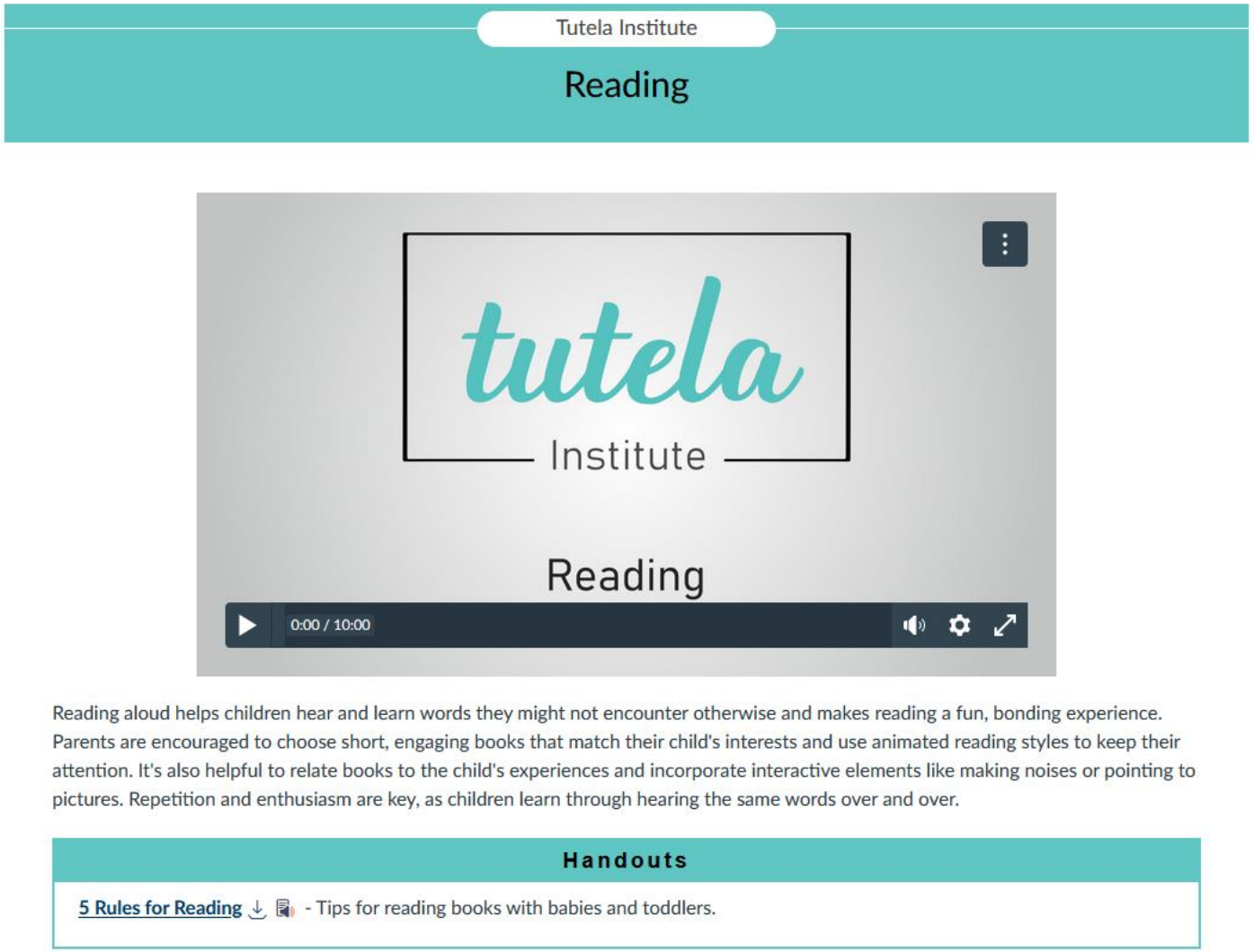
Start Here | Home Visitor Training | Caregiver Videos

Home Visitor Training

- 01: Early Language Development - Part I
- 02: Early Language Development - Part II
- 03: Bilingual Language Development
- 04: Red Flags
- 05: Family Centered Care
- 06: Coaching Parents
- 07: How Does the Child Communicate?
- 08: Parent Style
- 09: Increasing Parental Responsiveness

Course Content

- Course inventory
- Learning objectives



Course Content

- Course inventory
- Learning objectives
- Handouts

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Fun Sounds for Imitation Practice

If your child isn't quite ready to practice words yet, try these fun sounds to get imitation going!
Use this guide to pick 2 routines/activities and 2 (or more!) sounds to model and practice.
Examples are provided below, but be sure to pick sounds that get your child excited!

Tips:

- Repeat, repeat, repeat!
- Be animated and have fun
- Your child might not repeat the sounds and that's OK

Activity #1:
Sounds to Practice:
Activity #2:
Sounds to Practice:

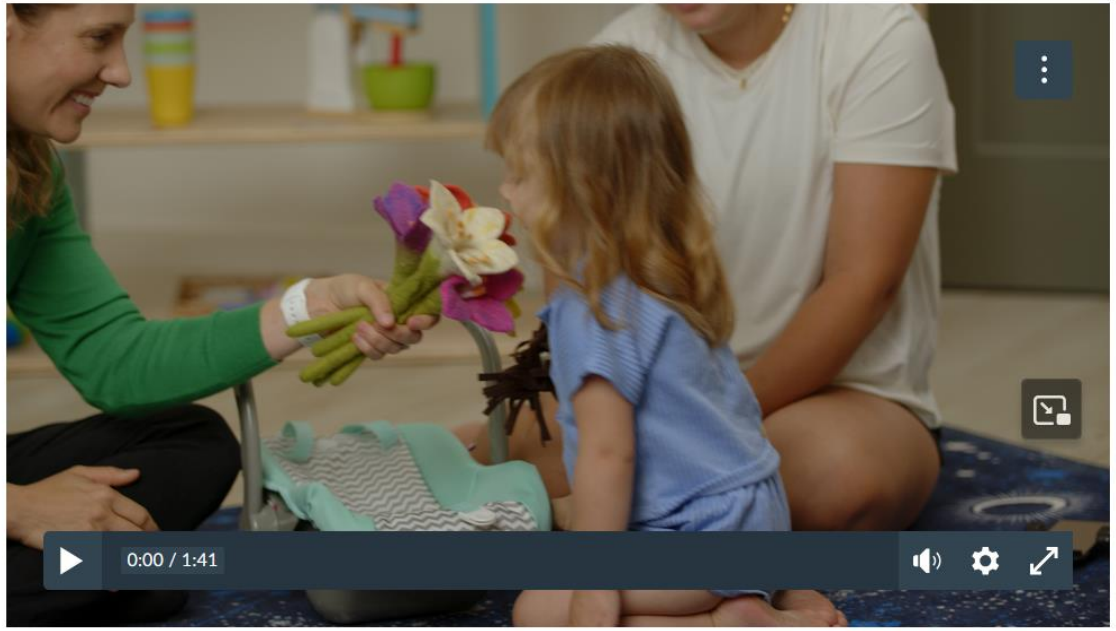
Examples:

Activity	Sounds
Meal time	Mmmm! Smacking lips, sniffing food, exhale after drink, slurp while drinking
Bath time	Whoosh! (pushing hand through bubbles), popping lips together (while popping bubbles), squeal/scream (while splashing)
Going outside	Grunt with effort (while trying to open door), animal noises, whoosh! (for wind), shiver (for cold), panting (for hot)
Bedtime	Yawn, sigh, snore, shhhh

Course Content

- Course inventory
- Learning objectives
- Handouts
- Demonstration Videos

Demonstration Video



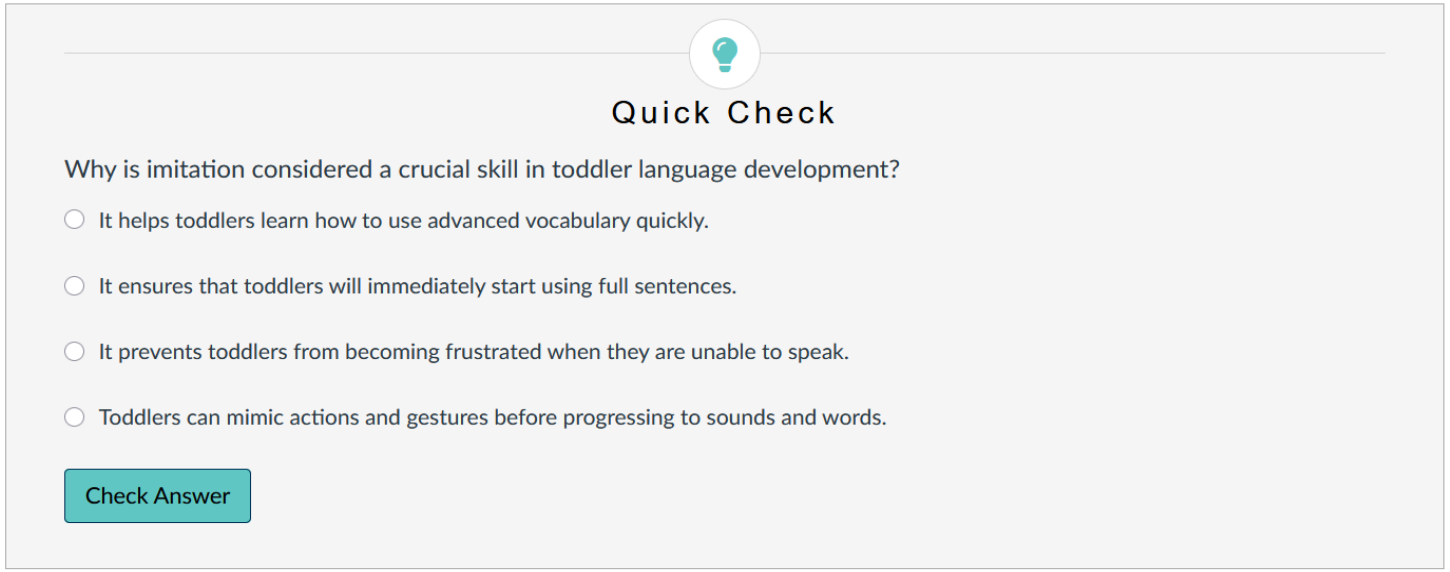
0:00 - Sandy models *driving* tractors and *carros*

1:00 - Caitlin models *smelling* flowers

1:29 - Caitlin models *pushing* pegs into board

Course Content

- Course inventory
- Learning objectives
- Handouts
- Demonstration Videos
- Assessment



Curriculum Preview: Provider Training

Milestones

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Speech and Language Milestones from Birth to 3 Years

0-6 Months:

- Pays attention to sounds
- Looks or turns towards voices or people talking
- Gets quiet when you talk
- Smiles at you, especially during a game like “peek-a-boo”
- Makes different sounds if they are happy or upset
- Recognizes familiar people
- Makes sounds with you, taking turns
- Makes cooing sounds like "oooo," "aahh," and "mmmm"
- Laughs and giggles
- Watches things they find interesting and follows them with their eyes
- Responds to toys that make noise, like bells or music
- Blows “raspberries”
- Makes different sounds like "baaaaa," or "daaaaaaaa"

7-12 Months:

- Looks at you when you say their name
- Makes long strings of sounds like “mamamama” or “dadadada”
- Tries to find a familiar person when they are upset
- Lifts arms up when they want to be picked up
- Looks at or reaches for familiar people and things (like toys) when you say them
- Pauses when you say “no”
- Points and shows or gives things
- Waves “bye bye”
- Looks for things he sees you hide, like a toy under a blanket
- Copies gestures for playing, like blowing kisses or playing peek-a-boo
- Tries to copy sounds you make
- Understands simple words and phrases like "Go bye-bye" and "Look at Mommy"
- Says one or two words like "mama" and "dada"

Early Development

Prelinguistic Skills Checklist

- Use this checklist to identify which of the important prelinguistic (before words) skills a child demonstrates and those they may need to work on.
- We want to see the child demonstrating these skills OFTEN and CONSISTENTLY.
- If you notice that a child is NOT showing one or more of these skills, we are likely not ready to work on saying words yet. Instead, we need to focus on PLAY and allowing the child to **listen** to and **learn** more words.

Skill	What does it LOOK like? Examples:	Yes/No + Notes (what did you SEE?)
Understanding Language	Responds to name Looks/points at things when named Follows simple directions Responds to simple questions	
Back and Forth Interaction/Social	Takes turns smiling/laughing Takes turns making sounds Takes turns playing peek-a-boo Pays attention to you AND a toy	
Imitation	Imitates big movements like jumping Imitates gestures like waving Copies play sounds Copies exclamatory words/real words (See imitation checklist for more)	
Makes Sounds on Purpose	Makes sounds during play (“whee!”, “boom!”, “vroom!”) Combines sounds (“bababa”, “dadada”) OFTEN Grunts/makes sounds while pointing or reaching	

Learning Two Languages

Learning two languages will not cause a language delay

Even if you think your child is behind, they can learn two languages!

Children just need good models in both languages

Imitation: “The BIG One”

Stages of Imitation

Use this handout to observe and understand how children imitate actions, gestures, and movements as they grow. Each section provides examples to help you to recognize and support learning and development through imitation. Whether observing playtime or routines, this is as a tool to track and encourage children’s ability to copy and learn from their environment.

Skill	Examples	What Did You Observe?
Imitates Actions with Objects	Stacking blocks Stirring with a spoon Feeding a stuffed animal Wiping a table Banging on a drum	
Imitates Movements	Kicking Jumping or marching Throwing balls Dancing Stretching/reaching	
Imitates Gestures & Baby Sign	Waving or Blowing a kiss Pointing Shaking head yes/no Clapping Sign for more, please, all done	
Imitates Sounds	“Vroom!” “Shhh!” “Mmmm” during mealtime Panting like a dog Animal sounds (“moo”, “baa”, “woof”) Fake coughing or sneezing	
Imitates Exclamatory Words	“Beep beep!”, “Boom!” “Ouch!”, “Eww!” “Uh oh!”/“Oh no!” “Whee!”, “Yay!”	

Curriculum Preview: Reading Strategies

Simple Strategies for Families

1. YOU make the rules: Follow your child's lead; skip pages, shorten text, or create your own story.
2. Text isn't everything: Focus on pictures and conversation; describe what you see and ask questions.
3. Keep it SIMPLE: Use short, fun phrases; repeat key words and match your language to your child's level.
4. Pictures matter: Point to objects, name them, and talk about the same picture in new ways to build.
5. HAVE FUN: Use animation, big expressions, and playful voices; enjoyment is more important than finishing the book

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5 Rules to Make Reading Fun for You and Your Child

Tips for reading books with babies and toddlers

RULE #1. YOU MAKE THE RULES!

- Don't worry about finishing entire books at a time.
- Focus on pages that you and your child enjoy.
- The most important thing is for you and your child to enjoy the experience and time spent together.
- Don't think of it as "just reading" - it's about interacting, bonding, and learning language and vocabulary.

RULE #2. TEXT ISN'T EVERYTHING.

- If you're losing your child's interest, mix it up - make up your own story or just describe the pictures.
- Point to objects within the picture while you describe them.
- Have your child point to pictures that you name

RULE #3. KEEP IT SIMPLE.

- Modeling language 101: keep your language simple and fun.
- Repeat, repeat, repeat!
- Too much text on the page? Simplify- make up your own!
- Consider your child's developmental level and match it.

RULE #4: PICTURES MATTER!

- Remember - it's not all about the text!
- Simple, colorful pictures are best.
- Use the pictures to keep your child engaged and focused.
- Talk about the same picture in new and different ways.

RULE #5: HAVE FUN!

- If you have fun, your child will too!
- Be as animated and engaged as possible.
- Exaggerage your intonation.
- It doesn't have to be perfect!
- No pressure - just enjoy it!

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5 Reglas para Hacer la Lectura Divertida para Usted y Su Hijo/a

Consejos para leer libros con bebés y niños pequeños

REGLA #1: ¡USTED PONE LAS REGLAS!

- No te preocupes por terminar libros enteros de una vez.
- Enfócate en las páginas que tú y tu hijo disfrutan.
- Lo más importante es que tú y tu hijo disfruten la experiencia y el tiempo juntos.
- No lo pienses como "solo leer": se trata de interactuar, crear lazos y aprender lenguaje y vocabulario.

REGLA #2: EL TEXTO NO LO ES TODO.

- Si pierdes el inters de su hijo, mezcla las cosas: inventa su propia historia o solo describe las imágenes.
- Señala objetos dentro de la imagen mientras los describes.
- Haz que tu hijo señale las imágenes que nombras.

REGLA #3: MANTÉNLO SIMPLE.

- Modelar el lenguaje 101: Mantén su lenguaje simple y divertido.
- ¡Repite, repite, repite!
- ¿Demasiado texto en la página? Simplifica: ¡inventa el suyo!
- Considera el nivel de desarrollo de su hijo y ajústate a él.

REGLA #4: ¡LAS IMÁGENES IMPORTAN!!

- Recuerda, ¡no todo se trata del texto!
- Las imágenes simples y coloridas son las mejores.
- Usa las imágenes para mantener a su hijo interesado y enfocado.
- Habla sobre la misma imagen de maneras nuevas y diferentes.

REGLA #5: ¡DIVIÉRTETE!

- Si usted se divierte, ¡su hijo también lo hará!
- Sé lo más expresivo y animado posible.
- Exagera su entonación. ¡No tiene que ser perfecto!
- Sin presión: ¡solo disfrútalo!

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Main Takeaway:

It’s not about reading every word – it’s about bonding, talking, and growing language together

Initial Outcomes

Objective 1:

Create Bilingual Caregiver Content

- ✓Produced **26 short videos** (3–5 min each) in **English & Spanish**
- ✓Covered speech, language & literacy for toddlers (1–3 yrs)
- ✓Companion handouts adapted for Spanish-speaking families
- ✓Developed a **scalable workflow** for content creation

Objective 2:

Train Community Health Workers

- ✓**22 training videos** (2 hrs, 44 min) created for CHWs
- ✓Six CHWs completed training with **82.5% average completion rate** (goal: 70%)
- ✓Positive feedback: “informative,” “easy to follow,” “short and manageable”

Initial Outcomes

Objective 3:

Test Service Delivery Model

- ✓**6 CHWs and 10 families** piloted the model
- ✓100% CHWs satisfied with training; 80% of families watched all videos
- ✓**8 of 10 children** showed meaningful communication gains on the FOCUS-34
- ✓Families valued bilingual resources and flexibility

Quotes:

- The short videos made it easy to follow. Longer ones would be overwhelming."
- "Having Spanish language videos was so meaningful. Parents felt relieved that resources were available in their home language.
- "It gave me reassurance to tell parents their bilingual child might use fewer words in one or both languages temporarily, that's normal"

Pilot Takeaways

- Grant funding, NOT charging families
- Flexibility of the model is key
  - Families could watch videos on their own or CHWs watch <u>with</u> the family
- Self-paced
  - Shorter videos made it digestible
- Experienced CHWs learned something new!
- Families loved receiving tablets
- Culturally and linguistically responsive content was appreciated

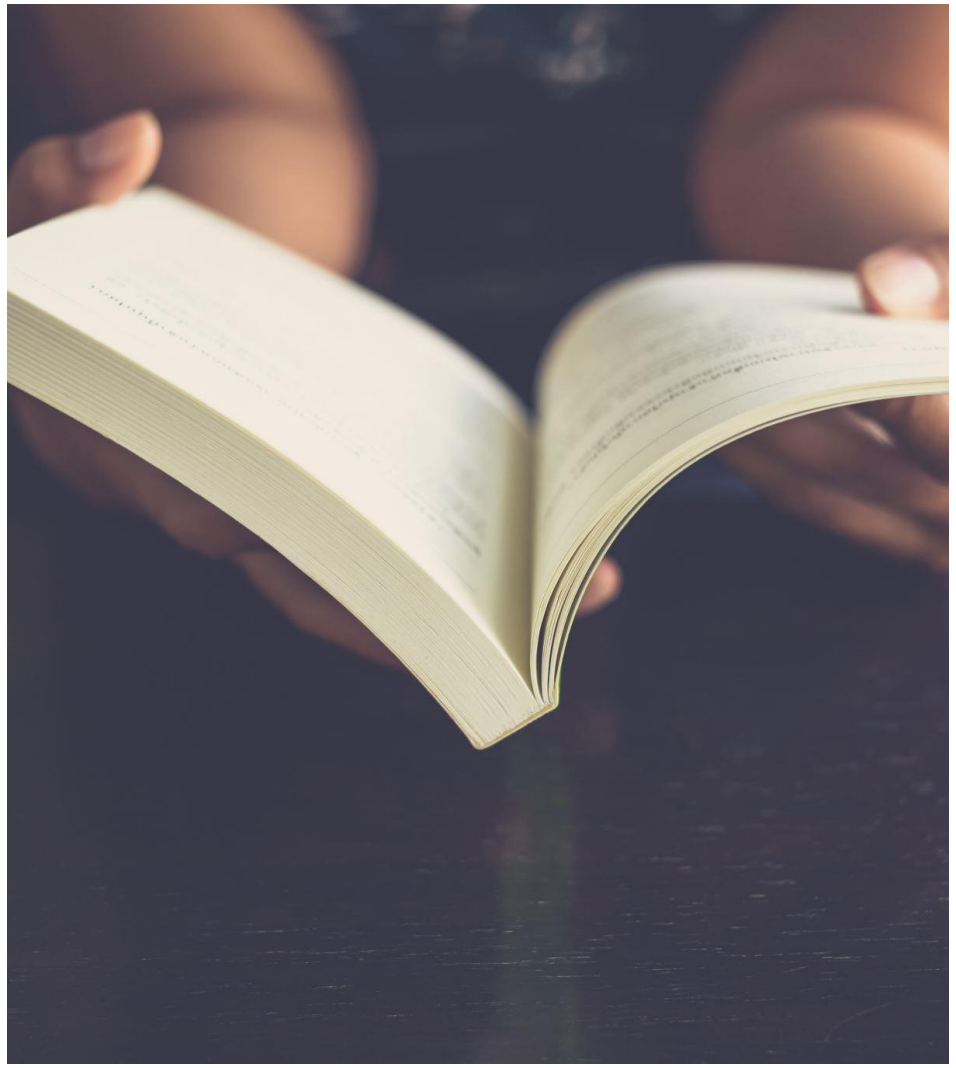
PHASE 2!

- Expanded Content
  - Full 0-5 age range
  - Expanded speech, language and literacy information
  - Sensory regulation, behavior management (OT)
  - Motor development (PT)
  - English/Spanish
- Offline Capable Learning Platform (custom LMS)
- New community partners:
  - Nurse-family partnership
  - Head Start
  - Imagination Library!

Imagination Library

- Early Literacy Focus
  - Creation of 25 (or more!) **bilingual** video demonstrations tailored to the DPIL book list
  - Focus on language understanding, early vocabulary, print awareness, phonological awareness, active/sensory engagement, family reading habits, etc.
  - QR Sticker in each book that takes the reader directly to the video for that book.

GOAL: Strengthen early language AND build a culture of reading



Activity 1: Review Handouts

- Take 10 minutes to review with a partner
- Brainstorm ways we can incorporate these strategies into reading time!

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Bedtime	Yawn, sigh, snore, shhhh
Toy animals/farm	Animal noises (moo, baa, panting like a dog, zzzz for a bee),

Activity 2: Explore the Course!

Check out the online course

Review the content that we introduced (and more!)

Let us know your thoughts!

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