

# Creating Environments and Conditions for Thriving Kindergarteners

February 14, 2023



# Moderator



## Laura Bornfreund

Senior Fellow and Advisor on Early & Elementary Education  
New America

# Presenters



**Sheresa Blanchard, Ph.D.**  
*Senior Education Researcher*  
SRI International



**Hedy Chang**  
*Executive Director & Founder*  
Attendance Works



**Rebecca Colbert, Ph.D., RLA**  
*Senior Director of Design  
& Engagement*  
Early Childhood Health Outdoors  
Initiative (ECHO)  
National Wildlife Foundation

# Presenters



**Ann Kay**

*Co-Founder & Education Coordinator*  
The Rock 'n' Read Project

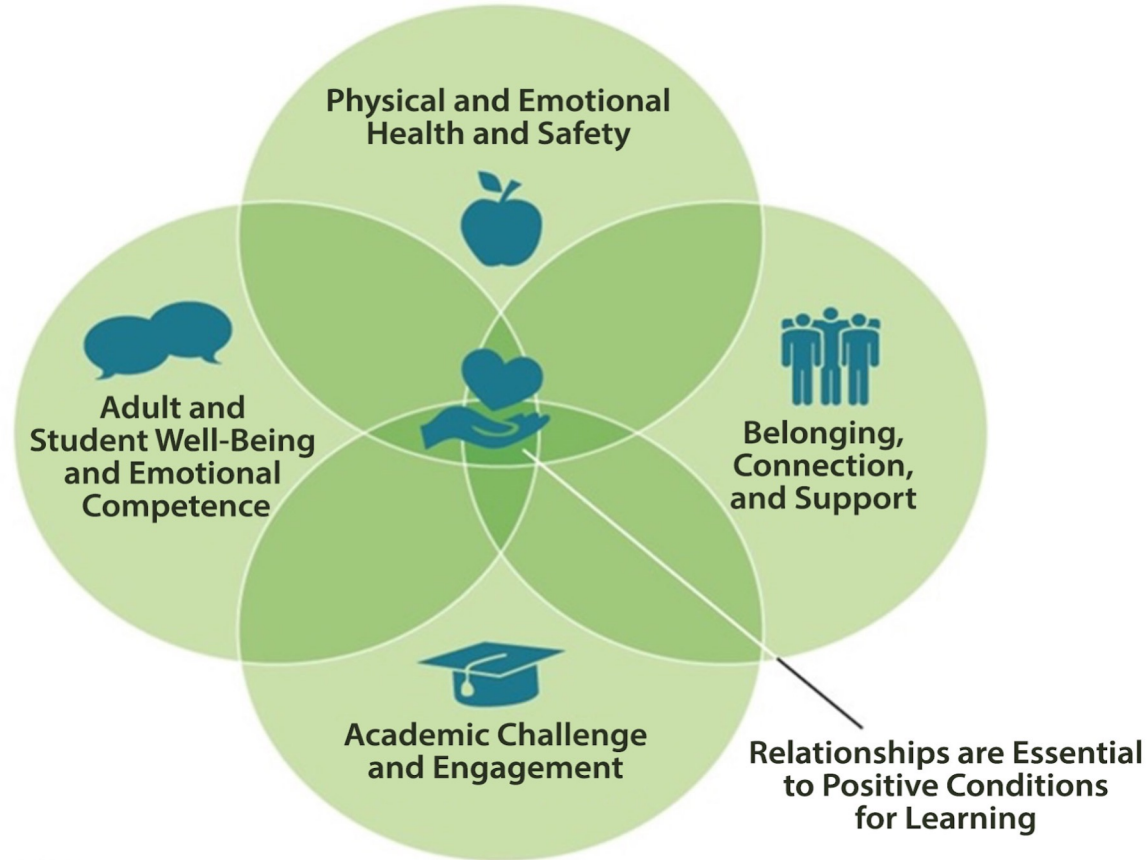


**Natalie Walrond**

*Director*  
Center to Improve Social and Emotional  
Learning and School Safety  
WestEd



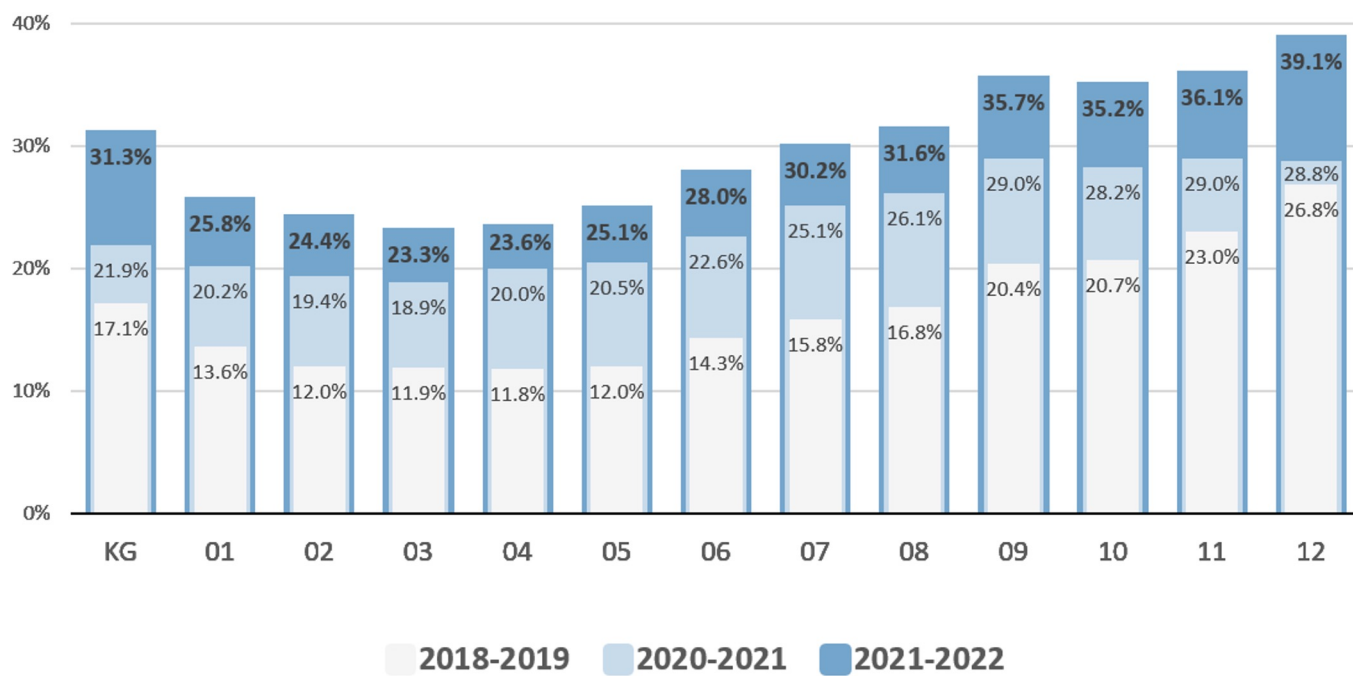
# Positive Conditions for Learning Are Essential To Thriving Kindergartners; High Levels of Chronic Absence Signal They Aren't In Place



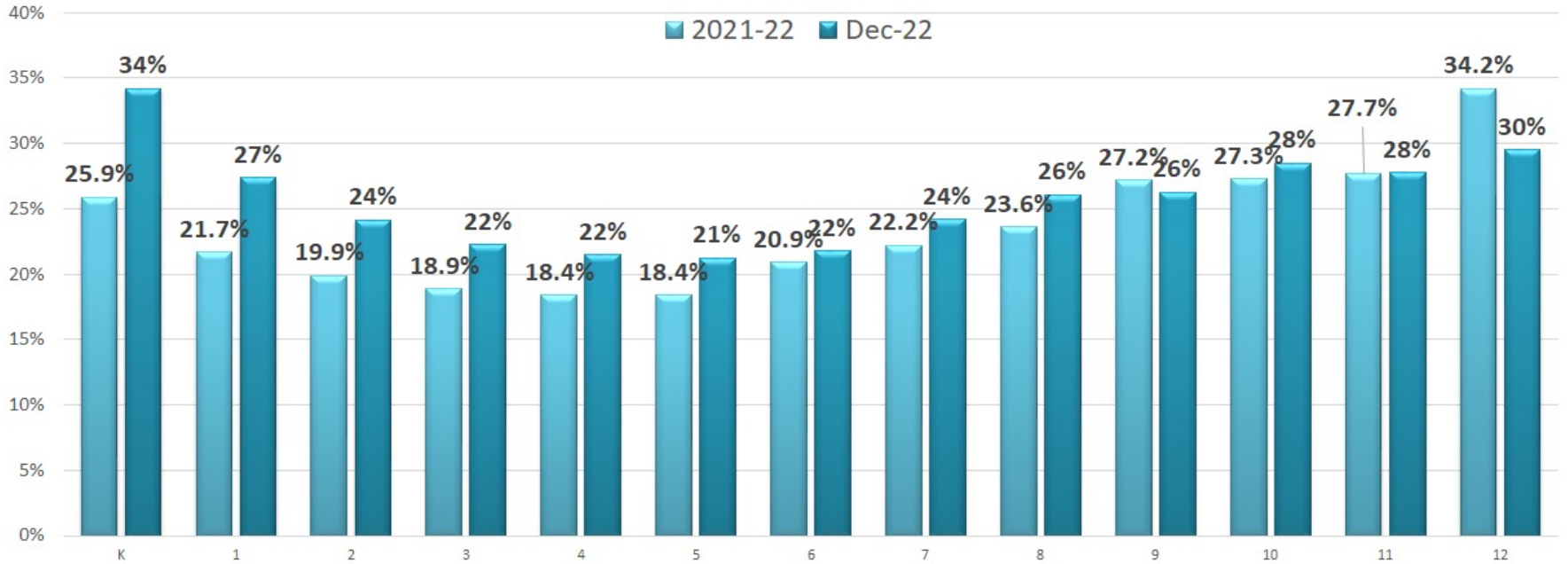
# Kindergarten Chronic Absence California 2021-22 (statewide rate of 40.4%)

Race / Ethnicity	Chronic Absenteeism Eligible Enrollment	Chronic Absenteeism Count	Chronic Absenteeism Rate
African American	22,748	11,912	52.4%
American Indian or Alaska Native	2,054	1,039	50.6%
Asian	46,522	10,683	23.0%
Filipino	9,333	3,000	32.1%
Hispanic or Latino	274,298	131,532	48.0%
Pacific Islander	1,738	1,039	59.8%
White	99,722	27,921	28.0%
Two or More Races	24,911	7,842	31.5%
Not Reported	10,635	3,898	36.7%

# Chronic Absenteeism in Ohio by Grade



# Connecticut data shows that chronic absence remains high this Fall especially for younger learners



# Creating Positive Learning Conditions

Physical  
space

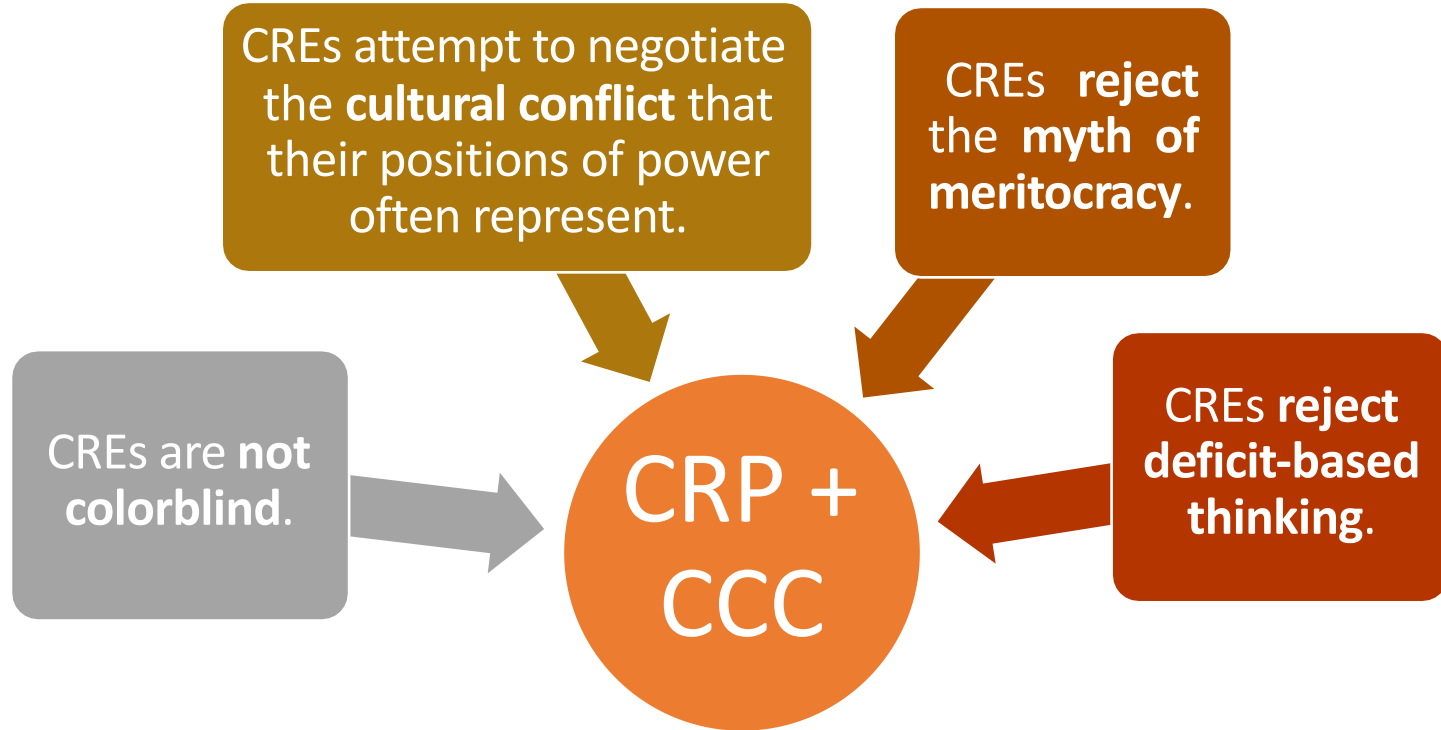
Curriculum  
& Materials

Daily  
structure

People

Ambiance

# Connecting Culturally Responsive Pedagogy (CRP) and Critical Cultural Competence (CCC)





Culturally  
Responsive  
Early Childhood  
Teachers (Chen,  
Nimmo, &  
Fraser, 2019)



Raising self-awareness

Physical Environment

Pedagogical Environment

Relationships with Families and  
Community



## Self-Awareness



- Think about these aspects of identity. Which ones resonate most with you? Why?
- Think then talk to someone near you.





# Culturally Responsive Early Childhood Teachers

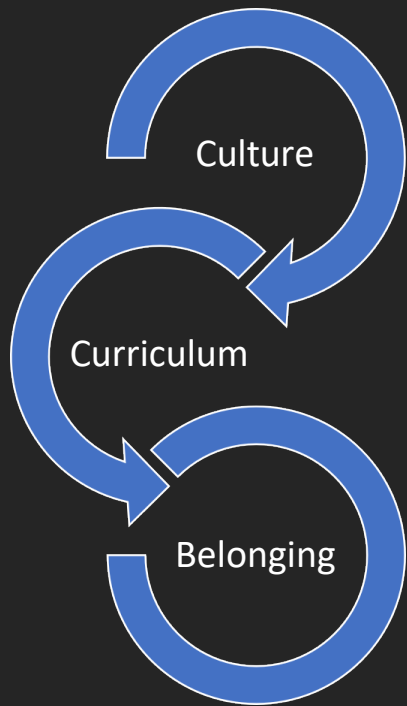
(Chen, Nimmo, & Fraser, 2019)

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A. Raising self-awareness—taking a look within:	Not yet: This is new territory for me/Not applicable to my age group	Sometimes: I have a beginning awareness	Usually: But still require conscious effort	Consistently: I do this with ease	The next steps for me: My goal is . . .
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1. Am I aware of my own cultural identity and history? How comfortable am I about who I am?
2. Am I aware of biases I may hold?
3. Do I view diversity and exceptionality as strengths and that ALL children can succeed?



# How Do Nature-Based Learning Opportunities Benefit Children?



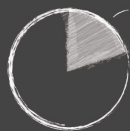


# active kids learn better

physical activity at school is a win-win for students and teachers

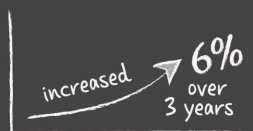


GRADES:



20% more likely to earn an A in math or English

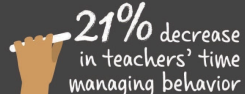
STANDARDIZED TEST SCORES:



JUST ONE PHYSICALLY ACTIVE LESSON CREATES:



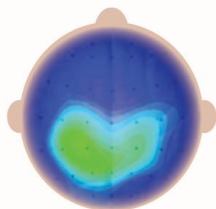
13% increase in students' physical activity for the week



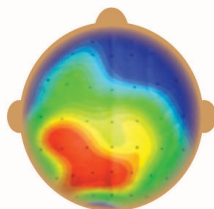
21% decrease in teachers' time managing behavior

## physically active kids have more active brains

BRAIN SCANS OF STUDENTS TAKING A TEST:



after 20 minutes of sitting quietly



after 20 minutes of walking

Red areas are very active; blue areas are least active.

MORE RESULTS:

after 20 minutes of physical activity:  
students tested better in reading, spelling & math and were more likely to read above their grade level

after being in a physically active afterschool program for 9 months:  
memory tasks improved 16%



SOURCES: Donnelly J.E. and Lambourne K. (2011). Classroom-based physical activity, cognition, and academic achievement. *Prev Med.* 52(Suppl 1):S36-S42. Hillman C.H. et al. (2009). The effect of acute treadmill walking on cognitive control and academic achievement in preadolescent children. *Neuroscience.* 159(3):1044-1054. Kamijo K. et al. (2011). The effects of an afterschool physical activity program on working memory in preadolescent children. *Dev Sci.* 14(5):1046-1058. Kibbe D.L. et al. (2011). Ten years of TAKE 10!: Integrating physical activity with academic concepts in elementary school classrooms. *Prev Med.* 52(Suppl 1):S43-S50. Nelson M.C. and Gordon-Larsen P. (2006). Physical activity and sedentary behavior patterns are associated with selected adolescent health risk behaviors. *Pediatrics.* 117(4): 1281-1290.

Learn more about why active kids learn better and how schools can help at [activelivingresearch.org/activeeducationbrief](http://activelivingresearch.org/activeeducationbrief).



# Natural Settings Support Kindergarten Curriculum





# Natural Loose Parts Serve as Manipulatives





# Sensory Exploration Enhances STEAM Learning





# Nature is Healing



TIME IN NATURE HELPS CHILDREN AND FAMILIES COPE WITH ADVERSITY AND ACHIEVE RESILIENCE, RECOVERY AND REGULATION

PRODUCED IN PARTNERSHIP WITH:

Children's Nature Network

casey family programs

## Nature as a Pathway for Healing from Adverse Childhood Experiences (ACEs)

ACEs ENCOUNTERED by children and families, include:

- Poverty
- Neglect
- Violence
- Abuse
- Mental health issues
- Substance use

Children who experience ACEs MAY STRUGGLE WITH:

- Chronic health problems
- Mental health issues
- Substance use
- Poor nutrition and health
- Academic difficulty and truancy
- Disconnection from the natural world

RESEARCH INDICATES that nature-based interventions can play a vital role in improving:

- Children's physical health, mental health and well-being
- Social emotional skills
- Family bonds and communication
- Sense of belonging
- Connection to the natural world

INCORPORATE NATURE into therapeutic, family and educational settings:

- Nature therapy
- Forest bathing
- Outdoor Meditation
- Nature play
- Environmental education
- Gardening
- Care of animals
- Outdoor leisure activities
- Cultural use of plants
- Nature-focused arts and crafts

HEALTHY OUTCOMES for children and families:

- Permanency & stability
- Safety in the outdoors
- Healing for families and youth
- Self-regulation
- Family connection
- Cultural connection
- Community health
- Connection to nature







## Benefits of Nature-Based Interventions for Children Encountering Adverse Childhood Experiences

A survey of child and family service providers named five key outcomes as focus areas for intervention: healing, permanency, family connection, safety and self regulation.

Time in nature supports and enhances these outcomes, especially for children coping with or recovering from adverse childhood experiences.



Connection to nature supports mental health, well-being, resilience, restoration, enhanced mood and can reduce stress, contributing to **healing** for families and youth coping with adversity and trauma.

Experiences in nature help children become more mindful, manage behaviors and reactions, cope with new environments, control impulses and focus attention, contributing to better **self-regulation**.

Nature enhances family connections, communication and parental mental health, contributing to **safety** in the home. Quality outdoor spaces enhance community togetherness and reduce crime, contributing to **safety** in the community.

Family activities in nature improve communication and develop lasting **family connections** and relationships that can help keep children safe in their homes.

Time in nature nurtures a sense of self identity, belonging with others and connection to place, contributing to a sense of stability and **permanency**.

LEARN MORE ABOUT NATURE'S ROLE IN PROMOTING RESILIENCE, REGULATION AND RECOVERY FOR CHILDREN.

PRODUCED IN  
PARTNERSHIP WITH:

Children & Nature Network

casey family programs





**ECHO**  
EARLY CHILDHOOD HEALTH OUTDOORS

## Early Childhood Health Outdoors

*We envision a future where every young child experiences nature daily for the health of our kids, communities, and planet.*





***Sing Today...Read Forever!***



Photo: Amina Filkins/Pexels



# Neuroscientific Research

## The effects of singing and music-making on brain development

- Simultaneously stimulates cognitive, sensory, motor, and reward systems
- Enables auditory processing and auditory memory
- Improves neural encoding of speech
- Allows babies to acquire language earlier
- Develops beat synchronization—ability to keep a steady beat

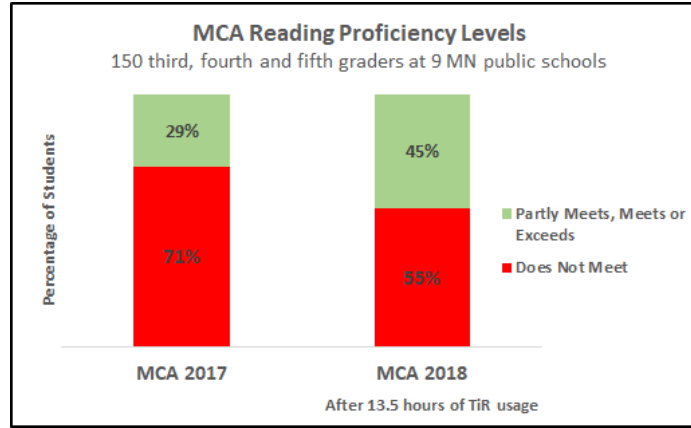
**These are essential brain functions  
for proficient reading** □



Photo: Amina Filkins/Pexels



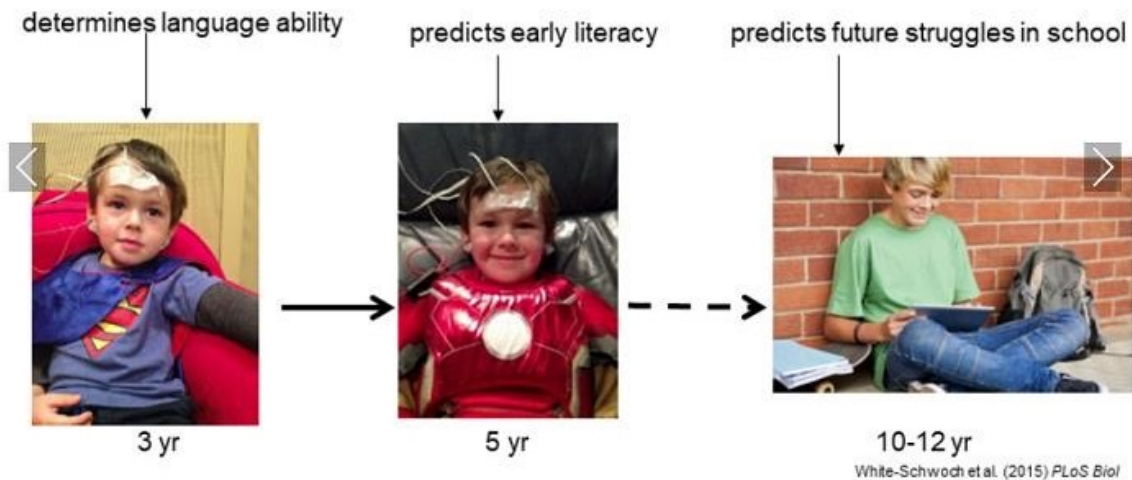
# MN state-funded 5-year pilot



- 1/3 of fourth and fifth graders went up a level in reading proficiency from the prior year (from Does Not Meet to Partly Meets) on the state reading test after 13 ½ hours of singing songs repetitively with a software program.
- The lowest-scoring students made the greatest gains.
- More hours of usage resulted in greater gains.
- The results were statistically significant.
- The 500 fourth and fifth graders at these schools who did not use TiR did **not** make significant gains in reading levels.

**Auditory Neuroscience Laboratory,  
Northwestern University, Illinois  
Neuroscientist Dr. Nina Kraus, Director**

Underlying **biology**  
**Sound Processing in the Brain**

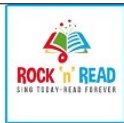


# Fit by Five!

**Children with basic musical skills are better readers**

**By age five, children can learn to:**

- **Keep a steady beat.**
- **Clap the rhythm of the words of a chant or song.**
- **Match a pitch.**
- **Sing in tune.**



## Basic Musical Fitness Assessment

*Musical fitness is the ability to perform basic music skills*

\_\_\_\_\_  
Child's Name

\_\_\_\_\_  
Date

### Keeping the beat

1. Open a metronome app, such as Metronome (Android) or TrueMetronome Life (Apple).
2. Set metronome to 120 beats per minute.
3. Demonstrate how to pat with two hands on your lap at the same time as the metronome click (beat).
4. Ask child to pat with both hands to the beat.

Did they match the beat?

No       Partly       Yes

### Keeping the beat with a song

1. Ask child to join you singing the "ABC Song."
2. Together, pat a slower beat with both hands on lap (about 60 beats per minute) and sing song: "A B C D E F G, H I J K L M N O P..." (bold letters go with pats.)
3. Ask child to pat and sing song without you. (If they don't know the letters, have them sing the melody using "doo.")

Did they match the beat?

No       Partly       Yes

### Clapping the rhythm

1. Ask child to "clap how the letters go" (every sound) of the "ABC Song" while singing the song, one clap for each sound: So, A, B, C, D...will each get one clap, L-M-N-O-P will get faster, shorter claps, and W will get three claps: "dou-ble-u."
2. Demonstrate by slowly singing and clapping "A, B, C, D."
3. Ask child to sing and clap whole song alone.

Did they clap each sound?

No       Partly       Yes

### Matching a pitch

1. Use a pitch pipe app, such as Pitch Pipe (Classic), or a piano.
2. Play D (on piano, use the D to the right of middle C).
3. Ask child to match the pitch using "loo."

Did they match the pitch?

No       Yes

### Singing in tune

1. Ask child to sing the "ABC Song" again. (If they don't know the letters, have them use "doo.")

Did their voice follow the ups and  
downs of the melody?

No       Partly       Yes

Did they sing the song in tune?

No       Partly       Yes





# ***Zap the Gap!***

***All children reading proficiently***

## **Goal**

Enable every child's brain for reading through singing, moving, and developing basic music skills

## **Zap the Gap**

State-funded program that would provide parents and PreK teachers:

- the science about brain development
- singing strategies
- Basic Musical Fitness Assessment
- *A Song a Day: Brain Prep for Pre-Readers*, 50 sequenced lessons that use music-making to enable the brain's auditory processing



# Creating Environments and Conditions for Thriving Kindergarteners

Learning Tuesdays with New America and the Campaign for Grade Level Reading

February 14, 2023

# Our Purpose

The Center's purpose is to provide *technical assistance* to support *states and districts* in the implementation of *social and emotional learning* and other whole-person, *evidence-based* programs and practices.

The Center will enhance the capacity of (a) state educational agencies (SEAs) to support their local educational agencies (LEAs) and (b) LEAs to support their schools.

# Throughlines

Science of  
Learning and  
Development

Equity

Authentic  
Family  
Engagement

Multidisciplin  
ary  
Approaches



# Two Big Ideas from SoLD

Learning is  
CONTEXTUAL.

Learning is  
INTEGRATED.



# Equity





# Authentic Family Engagement

Begins with  
inquiry

Works in  
Partnership

Strengths-  
based

Culturally  
Responsive



# Project-based Learning

Multi-  
disciplinary

Relevant,  
engaging, and  
rigorous

Invites play





# From Vision to Action: Transforming Kindergarten into a Sturdy Bridge from Early Learning to K-12 Education

*JOIN US!*

*March 22, 2023*

*12:00 p.m. – 1:30 p.m. PT*

*Registration at [www.selcenter.wested.org](http://www.selcenter.wested.org)*



# Thank you!



selcenter@wested.org

<https://selcenter.wested.org>

# Questions & Discussion

# Upcoming GLR Learning Tuesdays Webinars:

## FUNDER-TO-FUNDER CONVERSATIONS

Remake Learning: Philanthropic Opportunities for Enhancing Local Learning Landscapes  
Tuesday, February 21, 12:30–2:00 p.m. ET/9:30–11:00 a.m. PT

## GLR LEARNING TUESDAYS: LEARNING LOSS RECOVERY CHALLENGE

Early Learning Innovation in a Time of Crisis  
Tuesday, February 21, 3–4:30 p.m. ET/12–1:30 p.m. PT

## GLR LEARNING TUESDAYS: LEARNING LOSS RECOVERY CHALLENGE

Preventing Burnout and #Resignation: Investing in Teacher Coaching and Support  
Tuesday, February 28, 3–4:30 p.m. ET/12–1:30 p.m. PT

## GLR LEARNING TUESDAYS: LEARNING LOSS RECOVERY CHALLENGE

Promoting Impactful Teaching and Learning in Kindergarten Series Conclusion  
Tuesday, March 7, 3–4:30 p.m. ET/12–1:30 p.m. PT

Join us!

[gradelevelreading.net](http://gradelevelreading.net) [@readingby3rd](https://twitter.com/readingby3rd) [#GLReading](https://twitter.com/GLReading) [#LearningTuesdays](https://twitter.com/LearningTuesdays) [#GLRKeepers](https://twitter.com/GLRKeepers)

