

ARE YOU READY?

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What is MCE doing to help its changing population?

Growing Needs

MCE is now the most diverse elementary school in the county.

1

2

Special Education

The special education population is nearing 25%.

3

ML Students

The ML student population is nearing 12%.

4

CogniMoves™ Pilot

MEFS and CogniMoves™ were piloted to assist students.

Strengthening Executive Function Skills with CogniMoves™

We're excited to introduce our innovative plan for strengthening Executive Function skills in K-1 students. These critical skills help children manage thoughts, actions, and emotions - setting the foundation for academic success.

D by Donnie Turner



What Are Executive Function Skills?

Memory

Remembering important information needed to complete tasks.

Focus

Maintaining attention on activities despite distractions.

Impulse Control

Managing reactions and behaviors appropriately.

Task Switching

Moving smoothly between different activities or mental processes.

THE CEREBRAL CORTEX IS THE FOLDED AND WRINKLED OUTER LAYER OF THE BRAIN THAT BECOMES VISIBLE IN BRAIN IMAGES.

Complex Movement

Frontal Lobe

This primarily controls senses such as taste, hearing and smell. Association areas might help us determine language and the tone of someone's voice.

Problem Solving

Prefrontal Cortex

The prefrontal cortex controls executive functions like planning, memory, social skills, and advanced thinking. In adults, it helps determine the sense or danger of an action.

Speech

Hearing

Analysis of sounds

Brain Stem

Skeletal Movement

Parietal Lobe

The somatosensory cortex is responsible for processing touch and sensations related to the skin's surface. It allows us to be aware of our body's feelings and perceive our physical location.

Touch And Skin Sensations

Language

Receives Signals From Eyes

Analysis Of Signal From Eyes

Temporal Lobe

This is what distinguishes the human brain – the ability to process and interpret what other parts of the brain are hearing, sensing or tasting and then determine a response.

Why Executive Function Matters

1

Critical Development Window

Ages 4-8 are prime time for developing these essential skills.

2

Academic Success

Children with strong executive function concentrate better and plan ahead.

3

Everyday Skills

These abilities help with resisting distractions and transitioning between activities.

4

Lifelong Benefits

Executive function skills support success in school and beyond.



Introducing CogniMoves™



Universal Program

A cognitive-motor movement program designed for K-3 students.

Brain Training

Strengthens executive function skills while priming brains for learning.

Fun Approach

Children engage with fun, interactive 5-minute animated videos.



How CogniMoves™ Works

1

Animated Videos

Developmentally appropriate 5-minute sessions that children follow along with.

2

Progressive Complexity

Activities become more challenging as children master skills.

3

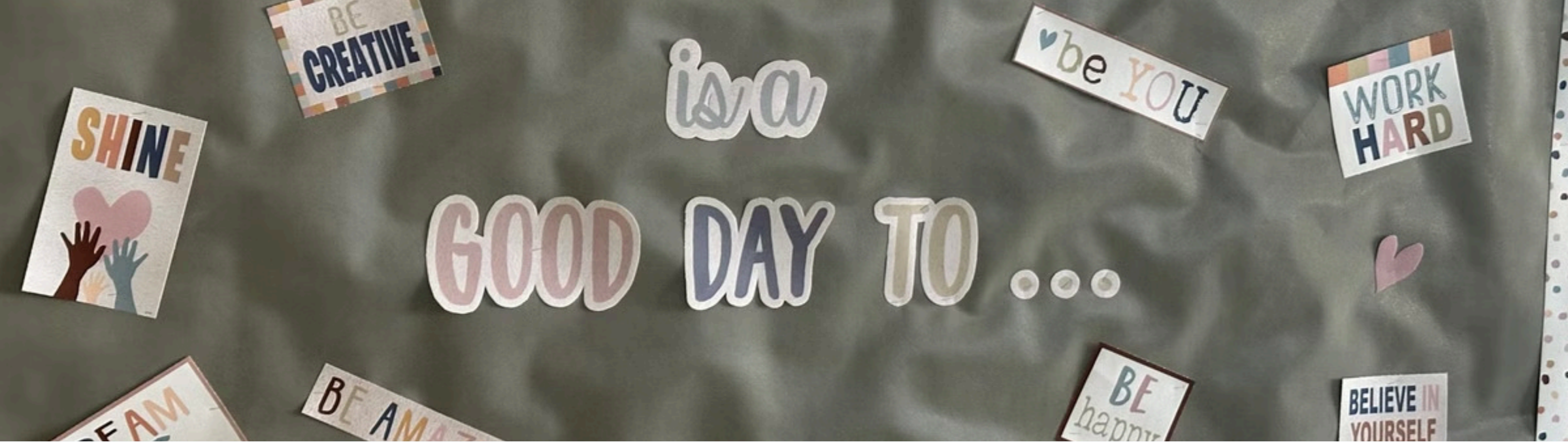
Daily Practice

Two-Three sessions per day, five days per week for optimal results.

4

Skill Development

Visual-tracking and planning skills develop alongside executive functions.



Measuring Progress: The MEFS™ App



Research-Based Assessment

Developed by Dr. Stephanie Carlson and Dr. Philip Zelazo for academic research.



Simple Digital Tool

Fun-to-use app for iOS and Android tablets that children enjoy.



Direct Measurement

Provides behavioral measurement of executive function skills from age two to adulthood.

Targeted Support Approach

Initial Assessment

All students take the MEFS assessment to establish baseline skills.

Whole-Class Implementation

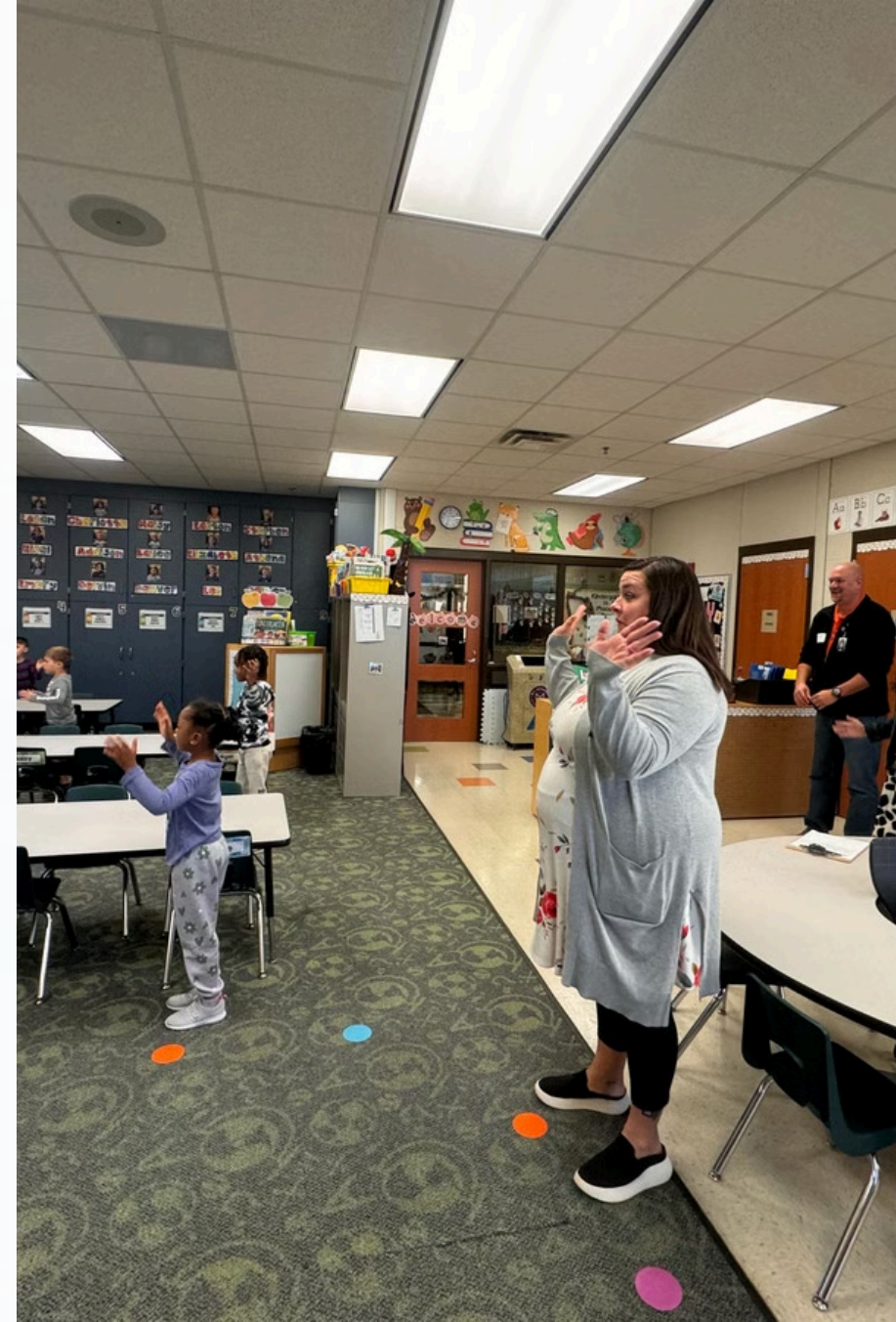
Daily CogniMoves™ sessions for all students in the classroom.

Small Group Support

Weekly structured activities for students showing little growth.

Individual Intervention

One-on-one support with personalized digital games for students needing more help.



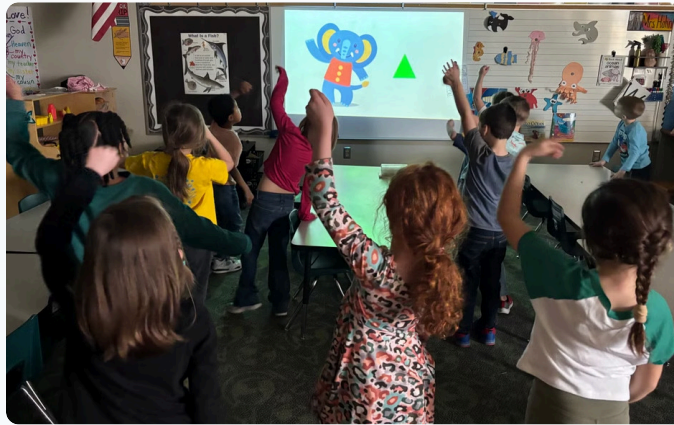
First Grade Teacher Testimonial

"We definitely see the benefits of this program. It has allowed our students to have a great transition piece in getting their brains ready to learn. The breathing activities have really helped some of our struggling students."



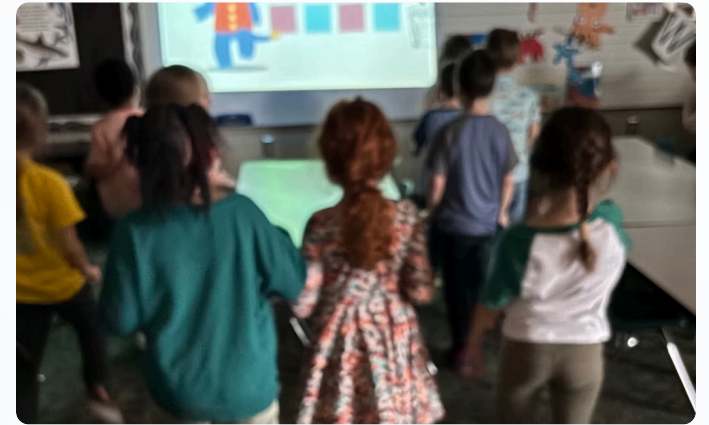
Transition Support

Students get their brains ready to learn through structured activities.



Sense of Achievement

Students love "leveling up" and feeling accomplished when they succeed.



Self-Regulation Skills

Breathing activities provide strategies for managing frustration.



Kindergarten Teacher Testimonial

1

Meaningful Transitions

Structure and predictability help students refocus and self-regulate.

2

Flexibility Development

Changing patterns teach students how to respond to change and problem-solve.

3

Essential Routine

Students notice and miss it when sessions are skipped.

4

Self-Regulation Tools

Breathing exercises become valuable tools used throughout the day.

Targeted Support Approach w/ Behavior Techs

- **Individualized Interventions:** Students showing no growth receive personalized support 3-4 times weekly. These one-on-one sessions utilize digital executive function games on iPads customized to each student's MEFS assessment results.
- **Small Group Sessions:** Weekly support for students with minimal winter assessment growth. These structured activities include "Bear and Dragon" and "Belly Breathing" exercises, specifically designed to enhance mindfulness, inhibitory control, working memory, and cognitive flexibility.



Initial Results

21

Initial Group

Students who received extra support during first semester.

10

Current Group

Students still receiving small group support after winter assessment.

2

Individualized

Students requiring one-on-one targeted support.

Winter testing results indicate growth in our K-1 students' executive function skills after implementing CogniMoves and targeted interventions.

What is the correlation between MEFS and NWEA?

Research shows a strong **correlation between executive function (EF) and academic achievement**. Since MEFS measures **core cognitive skills necessary for learning**, higher MEFS scores are often linked to **better academic performance on standardized tests like NWEA MAP Growth**.

Key Connections

1. Executive Function Impacts Reading and Math Growth

- **Working memory** helps students retain and apply information, improving comprehension and problem-solving skills in NWEA assessments.
- **Cognitive flexibility** allows students to switch between tasks, which is crucial for understanding new concepts in reading and math.
- **Inhibitory control** helps students focus, ignore distractions, and complete tasks efficiently—important skills for test-taking.

2. Higher MEFS Scores Predict Higher NWEA Scores

- Studies suggest that students with **strong executive function skills (measured by MEFS) tend to score higher on NWEA tests**.
- Early executive function skills in preschool and kindergarten are predictive of **long-term academic achievement**.

3. Executive Function Development Supports Growth Over Time

- Since NWEA MAP Growth tracks student progress over time, strong executive function skills contribute to **consistent academic gains**.
- Schools that incorporate **executive function interventions (like Cognimoves, mindfulness, or structured play)** often see improved NWEA outcomes.

The Kindergarten number say.....

The correlation between **MEFS BOY (Beginning of Year) scores** and **NWEA Fall Reading scores** is **0.638**, indicating a **moderate positive correlation**. This suggests that higher executive function scores (MEFS) tend to be associated with higher NWEA reading scores.

The correlation between **MEFS MOY (Middle of Year) scores** and **NWEA Winter Reading scores** is **0.758**, indicating a **strong positive correlation**. This means that as MEFS scores improve, NWEA reading performance also tends to increase.

Special Education (Sped) Students

- **MEFS BOY & NWEA Fall: 0.333** (Weak correlation)
- **MEFS MOY & NWEA Winter: 0.996** (Extremely strong correlation)

Speech Services Students

- **MEFS BOY & NWEA Fall: 0.982** (Very strong correlation)
- **MEFS MOY & NWEA Winter: 0.988** (Very strong correlation)

BOY			MOY		
Level	Count	Percent	Level	Count	Percent
Meets	46	42.99	Meets	67	61.47
Meets-Low	37	34.58	Meets-Low	23	21.10
Meets-High	13	12.15	Meets-High	13	11.93
Approaching	11	10.28	Approaching	4	3.67
			Exceeds	2	1.83

The 1st Grade number say.....

Special Education (Sped) Students

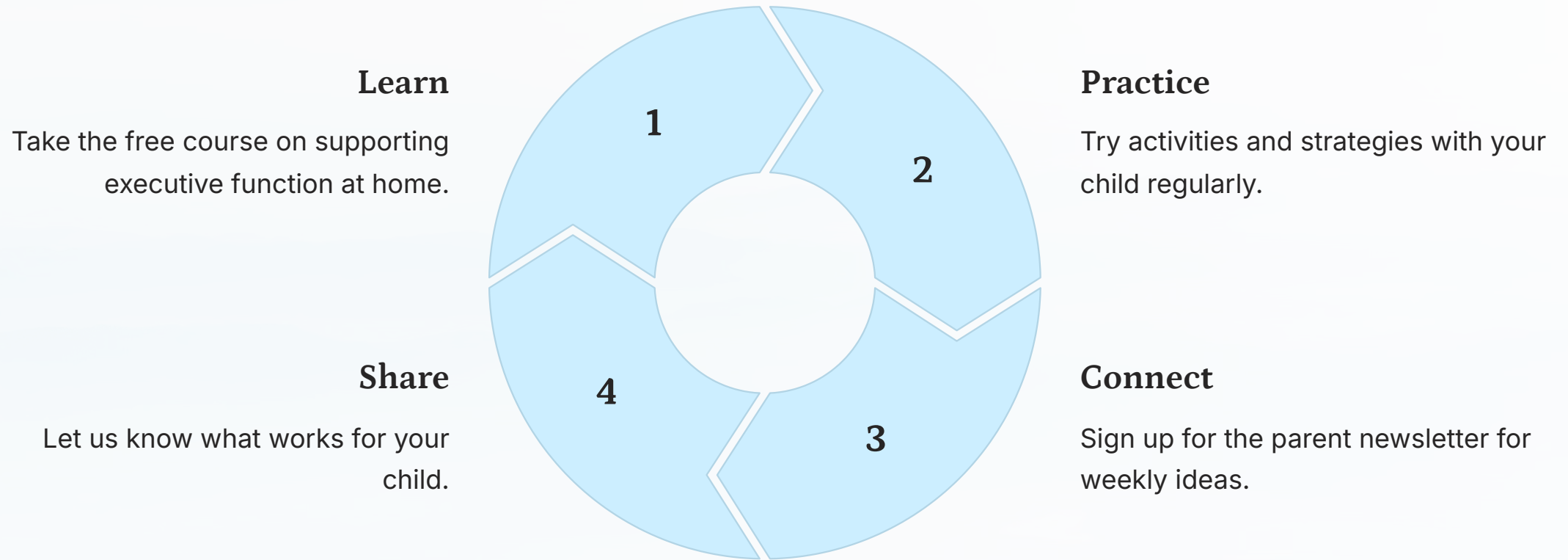
- **MEFS BOY (Beginning of Year) & NWEA Fall (1st Grade): 0.948** (Very strong correlation)
→ Strong executive function skills at the start of 1st grade are highly predictive of reading performance for Sped students.
- **MEFS MOY (Middle of Year) & NWEA Winter (1st Grade): 0.986** (Extremely strong correlation)
→ Mid-year executive function skills are even more closely linked to reading performance in Sped students.

Speech Services Students

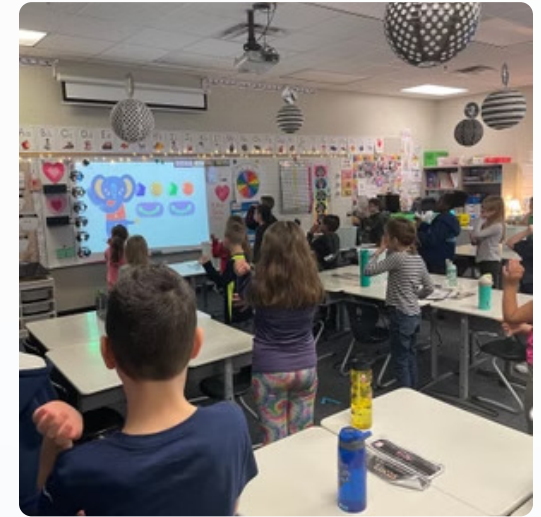
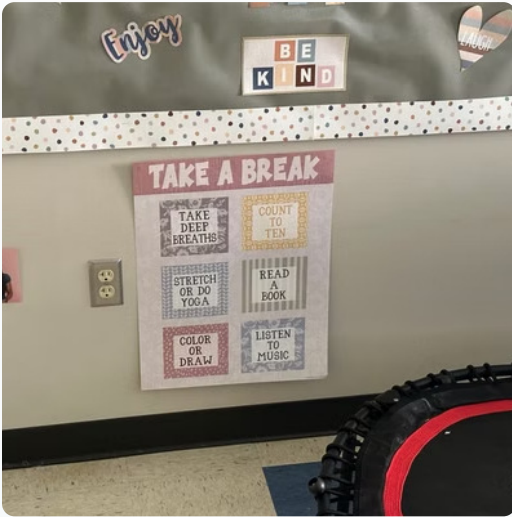
- **MEFS BOY & NWEA Fall (1st Grade): 0.449** (Moderate correlation)
→ Executive function at the beginning of 1st grade has some influence on reading scores for Speech students.
- **MEFS MOY & NWEA Winter (1st Grade): 0.500** (Moderate correlation)
→ Executive function growth in Speech students has a slightly stronger correlation with reading performance than BOY.

BOY			MOY		
Level	Count	Percent	Level	Count	Percentage
Meets	45	39.13	Meets	74	64.91
Meets-Low	41	35.65	Meets-High	21	18.42
Meets-High	17	14.78	Meets-Low	14	12.28
Approaching	11	9.57	Approaching	4	3.51
Exceeds	1	0.87	Exceeds	1	0.88

How Parents Can Get Involved



Resources for Parents



1

Partner Together

Join us in supporting your child's executive function development.

2

Free Course

"Supporting Executive Function Development at Home"

3

Weekly Newsletter

Sign up for new strategies and activities each week.