

# **INHALE, EXHALE:**

## **Promoting Mindfulness in the Elementary Classroom**



Presented by:  
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Learning Design and Technology  
University of Hawai'i at Mānoa  
Spring 2023



# QUESTION FOR THE AUDIENCE

**Name some words you  
think of when you hear  
self-regulation.**

*- type in the chat -*



**PBS:**

**Self-regulation is the process that a child's brain goes through that gives them the ability to control their behaviors and emotions in response to a particular situation.**



**PBS:**

**Self-regulation is the process that a child's brain goes through that gives them the **ability** to **control** their **behaviors** and **emotions** in response to a particular situation.**



# PRESENTATION OVERVIEW

01

## INTRODUCTION

- Background
- Problem
- Instructional Goal
- Premise

02

## DESIGN

- Literature Review
- Instructional Scope & Sequence
- Technologies Used
- Domains of Learning
- Design Theories and Frameworks

03

## EVALUATION

- Usability Study
- Learning Effectiveness Assessment

04

## CONCLUSION

- Meeting Project Goals
- Final Thoughts and Takeaways
- Implications for Further Research

LET IT GO!



01

# INTRODUCTION

# BACKGROUND



# BACKGROUND





# BACKGROUND



# BACKGROUND





# PROBLEM STATEMENT

Social emotional learning (SEL) is not inherently taught to pre-service teachers, leaving them ill-equipped and unprepared to help students self-regulate in the classroom.



# INSTRUCTIONAL GOAL

To design and produce instructional material that equips **K-2 teachers** with the knowledge and skills needed to feel comfortable in teaching meditative breathing and yoga in the classroom.



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To design and produce instructional material that equips **K-2 teachers** with the **knowledge** and **skills** needed to feel **comfortable** in **teaching** meditative **breathing** and **yoga** in the **classroom**.



# UPON THE END OF INSTRUCTION...

participants will have obtained new knowledge and skills that will help them feel comfortable in teaching meditative breathing and yoga in the classroom.



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# PREMISE





# PREMISE

## EMOTIONAL INTELLIGENCE

being aware of,  
controlling, and  
expressing ones  
emotions

# PREMISE

## EMOTIONAL INTELLIGENCE

being aware of,  
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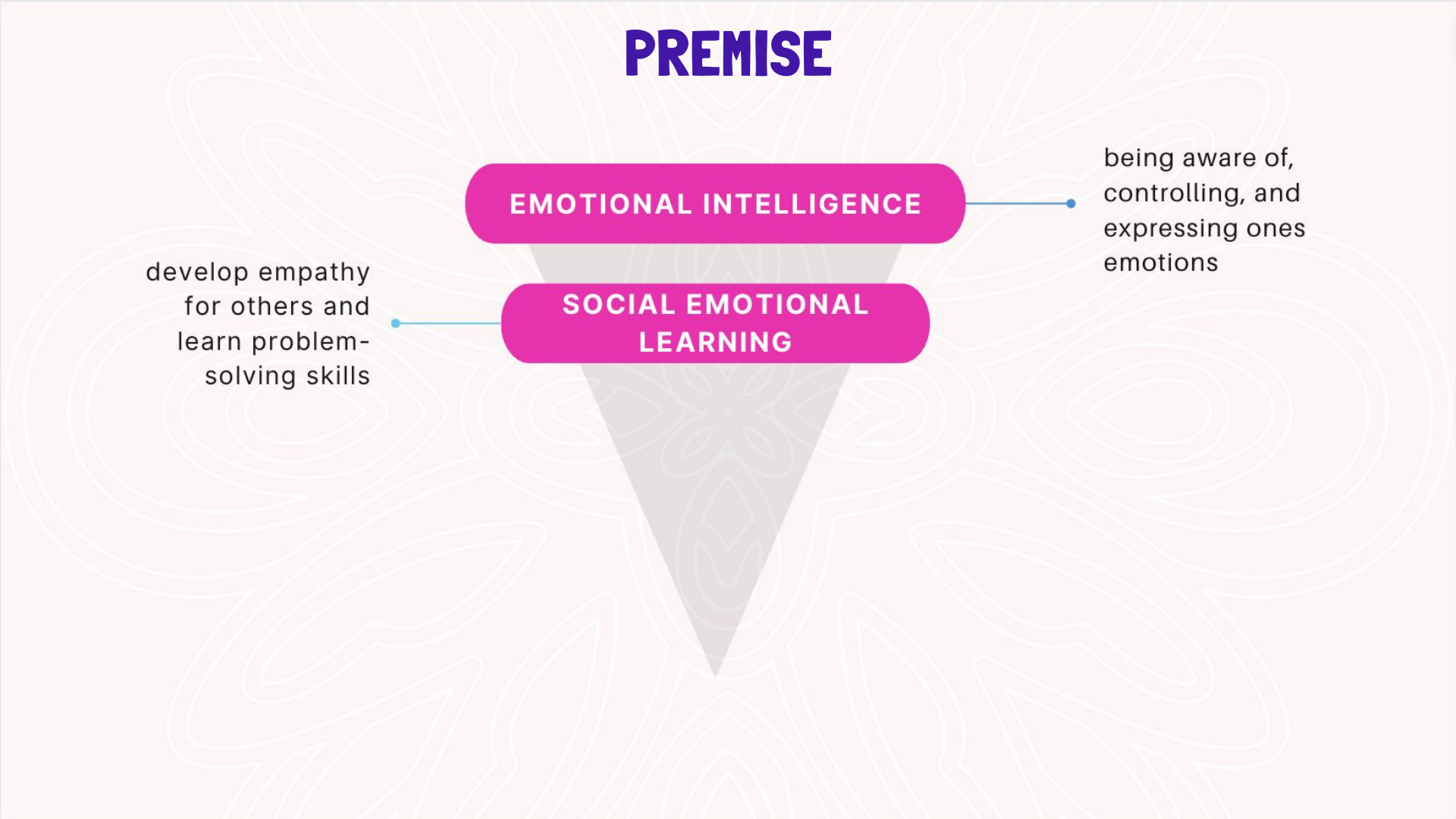
# PREMISE

**EMOTIONAL INTELLIGENCE**

being aware of,  
controlling, and  
expressing ones  
emotions

develop empathy  
for others and  
learn problem-  
solving skills

**SOCIAL EMOTIONAL  
LEARNING**



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**SELF-REGULATION**

understand ways  
to manage one's  
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**SOCIAL EMOTIONAL  
LEARNING**

**SELF-REGULATION**

understand ways  
to manage one's  
emotions

meditative breathing  
and yoga

**MINDFULNESS**



02

**DESIGN**



# LITERATURE REVIEW



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## Incorporating SEL into Classroom Instruction

In regards to evidence-based SEL programming, the results showed **better academic performance, improved attitudes and behaviors** surrounding **learning**, fewer negative behaviors, and **reduced emotional stress**.

(Schonert-Reichl et al., 2017)



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## The Importance of Student Self-Regulation

Students who **self-regulate** are able to **adapt** their **thoughts, feelings, and actions** in relation to their **motivation** and **learning**.

(Boekaerts and Corno, 2005)

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## Yoga as a Mindfulness Practice in the Classroom

There is **improvement** in **emotional health** and **increases** in **self-esteem, self-confidence,** and level of **joy** as a result of yoga implementation in the classroom.

(Chen and Pauwels, 2014)

# INSTRUCTIONAL SCOPE AND SEQUENCE

K-2 teachers are comfortable in their knowledge and skills to incorporate meditative breathing and yoga in the classroom to improve mindfulness.

Introduction

Emotional Intelligence

Self-Regulation

# INSTRUCTIONAL SCOPE AND SEQUENCE

## M1 - Meditative Breathing

Belly Breaths

Snake Breaths

Hot Air Balloon

Dragon Fire Breaths

## M2 - Chair Yoga

Seated Twist

Cobra Pose

Lotus Pose

Boat Pose

## M3 - Standing Yoga

Forward Bend

Crescent Moon Pose

Lunge Pose

Tree Pose

# TECHNOLOGIES USED

WIX



Pexels



EOS  
R10

H5P



# DOMAINS OF LEARNING



## COGNITIVE

Measured through the pre and post assessment results

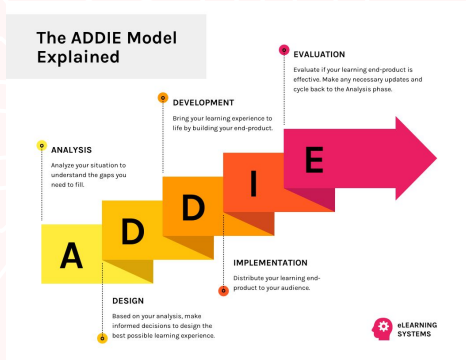


## AFFECTIVE

Measured through the retrospective survey responses

# DESIGN THEORIES AND FRAMEWORKS

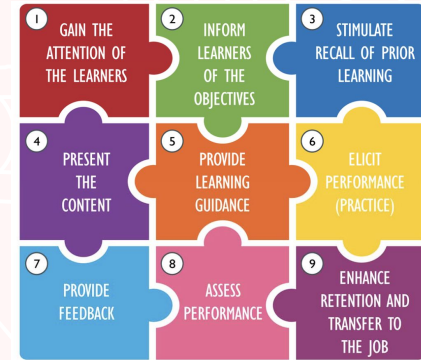
## ADDIE



## ARCS



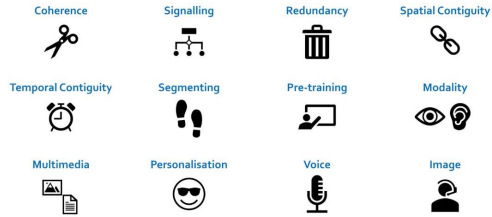
## Gagne's Nine Events



# DESIGN THEORIES AND FRAMEWORKS

## Mayer's Multimedia Design Principles

### 12 Principles



## Merrill's Principles of Instruction









03

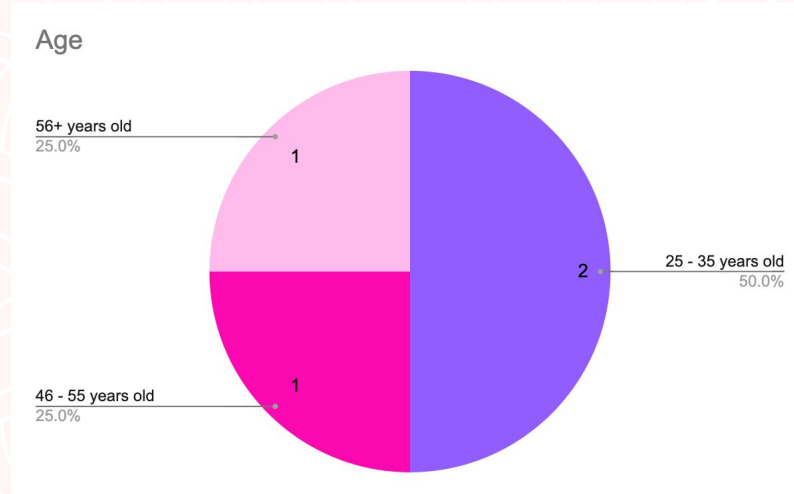
# EVALUATION

# USABILITY STUDY

QUIET  
YOUR MIND



# PARTICIPANT CHARACTERISTICS (n=4)



100% Female

# RESULTS

*Thematic Analysis Of Positive And Negative Comments By Usability Category (n = 4)*

Category	Total	Positive	Negative
Visual Design	12	12 (100%)	0 (0%)
Content	23	20 (87%)	3 (13%)
Navigation	9	6 (67%)	3 (33%)
	44	86%	14%

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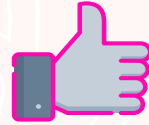
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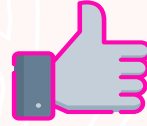
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# NOTABLE PARTICIPANT QUOTES





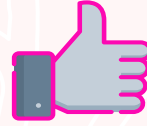
# NOTABLE PARTICIPANT QUOTES



“Sounds like it would be **beneficial** for **all** students, especially students that are suffering from some of their **inner struggles**.”



# NOTABLE PARTICIPANT QUOTES



“Sounds like it would be **beneficial** for **all** students, especially students that are suffering from some of their **inner struggles**.”

“It’s something you can **do** in the classroom with the **resources** you already **have**.”

# POSITIVE PARTICIPANT COMMENTS



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## CONTENT

- Inclusive photos
- Great resource
- Interactive videos
- Concise
- Buzzwords, headings
- Good media variety

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## NAVIGATION

- Flows well
- User-friendly
- Easy to navigate
- Can get to the modules from two different places

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## NAVIGATION

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## VISUAL DESIGN

- Calming colors go with theme
- IKEA-looking, clean
- Symmetrical, great layout
- Not overly-stimulating
- Neat and tidy

# NEGATIVE PARTICIPANT COMMENTS



# NEGATIVE PARTICIPANT COMMENTS



## CONTENT

“If I was to **look** for something that I was going to use in the **classroom**, I would go straight to **resources**, because that's what I would use.”



## CONTENT

“The ‘Modules’ tab should be named something different to **grab** the teacher’s **attention**.”



# RESULTS



Inhale,  
Exhale

## Inhale, Exhale

Incorporating Yoga in the K-2  
Classroom

[Home](#)

[Learning Modules](#)

[Resources](#)

[About](#)



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Exhale

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# RESULTS



Inhale,  
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Module 1  
Module 2  
Module 3



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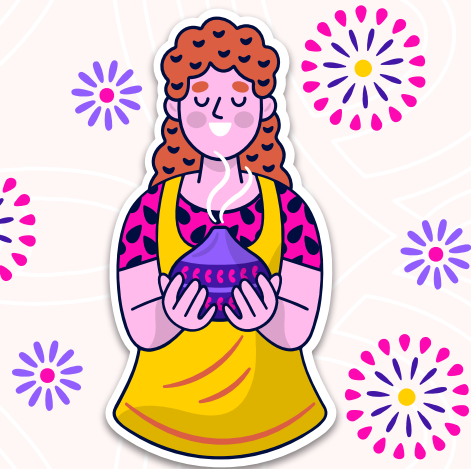
Resources

About

Meditative Breathing  
Chair Yoga  
Standing Yoga



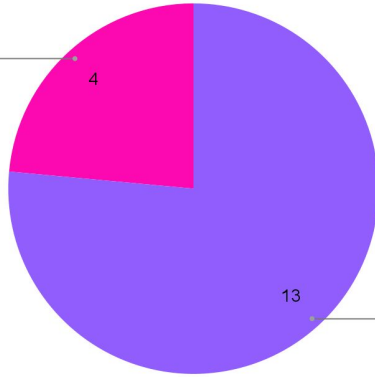
# LEARNING EFFECTIVENESS



# PARTICIPANT CHARACTERISTICS (n=17)

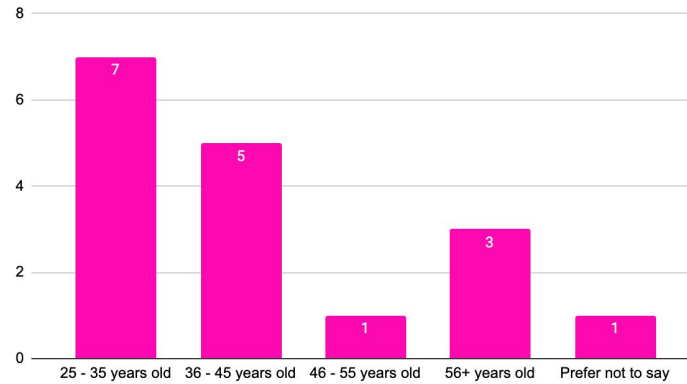
## Gender

Male  
23.5%



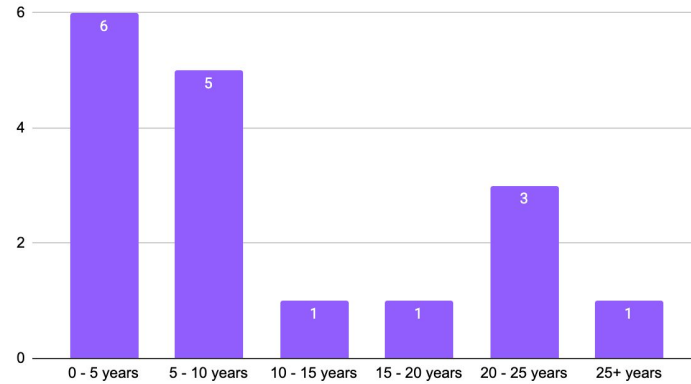
Female  
76.5%

## Age

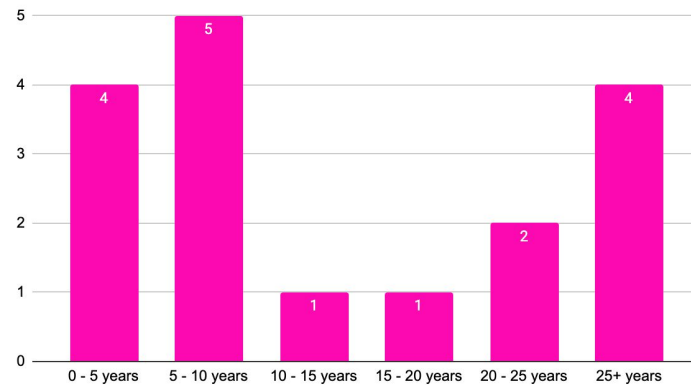


# PARTICIPANT CHARACTERISTICS (n=17)

Years Taught in K-2

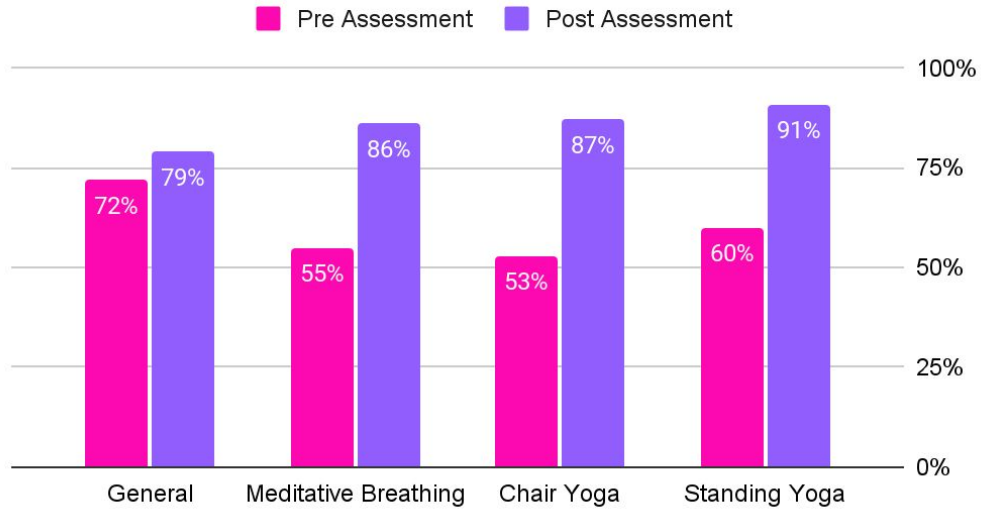


Years Taught in General



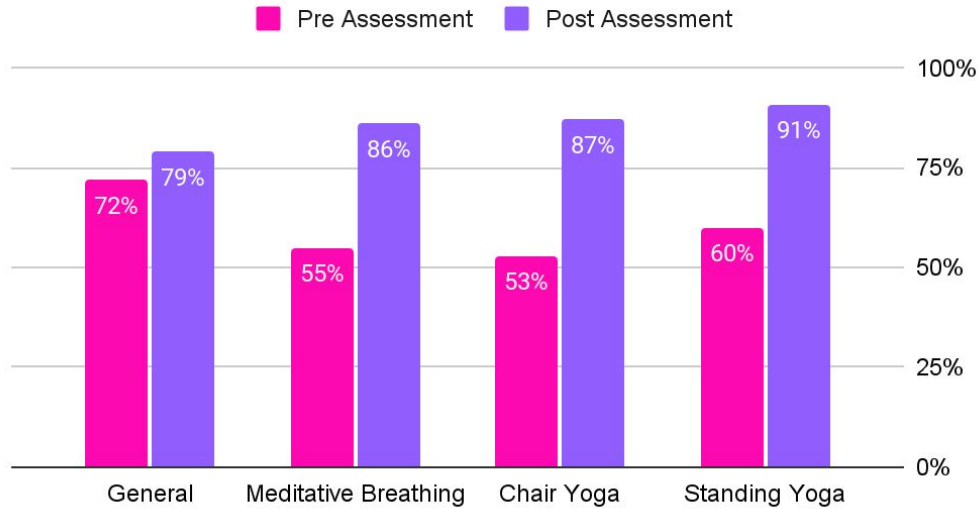
# RESULTS

## Pre vs. Post Assessment Scores by % - Chunked



# RESULTS

## Pre vs. Post Assessment Scores by % - Chunked



Δ +7%

Δ +31%

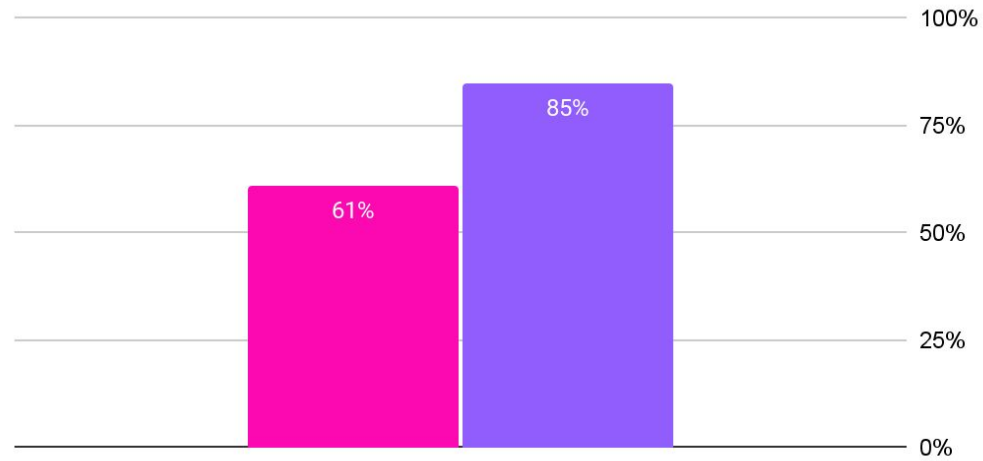
Δ +34%

Δ +31%

# RESULTS

## Pre vs. Post Assessment Score by % - Overall

■ Pre-Assessment Total Score ■ Post-Assessment Total Score

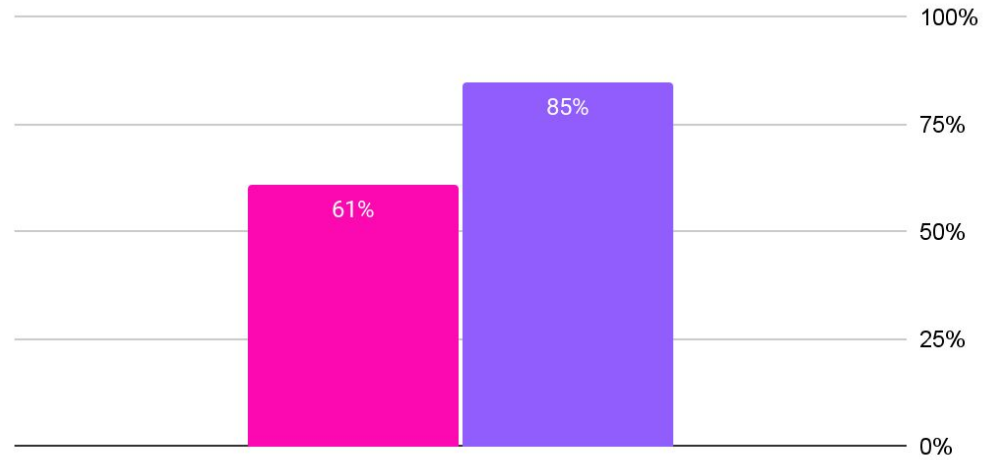




# RESULTS

## Pre vs. Post Assessment Score by % - Overall

■ Pre-Assessment Total Score ■ Post-Assessment Total Score



$\Delta$  +24%

# RESULTS

**List two reasons why  
students have poor  
self-regulation**

# RESULTS

## List two reasons why students have poor self-regulation

- “Overall better engagement and peer relationships”
- “I still say too much screen time is a problem, and they have not been taught self-regulation.”
- “Not taught and need to practice them”
- “1) they weren't taught 2) weren't exposed”

# RESULTS

## List two reasons why students have poor self-regulation

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### Why Some Children Struggle

- their biological make-up
- unique temperaments
- the environment
- parent-child interactions
- ADHD / anxiety

Select the response which contains the two words that make the following statement true. \*

Emotional intelligence allows people to face their internal and \_\_\_\_\_ problems. Although, people are not born with the \_\_\_\_\_ to be emotionally intelligent, it must be learned and practiced.

- extra and ability
- outside and information
- external and ability
- important and understanding

1

Select the response which contains the two words that make the following statement true. \*

While emotional intelligence is a broad term with many concepts underneath it, the key to the foundation is \_\_\_\_\_. Equipping oneself to be emotionally intelligent is not a(n) \_\_\_\_\_ endeavor.

- community and difficult
- culture and easy
- support and overused
- money and easy

5

Select the response which contains the two words that make the following statement true. \*

People may not realize it, but they use self-regulation skills \_\_\_\_\_. They learn skills such as working memory, \_\_\_\_\_ attention, and inhibitory control.

- sometimes and flexible
- everyday and selective
- often and receptive
- everyday and flexible

8

Select the response which contains the two words that make the following statement true. \*

Students who can properly self-regulate exhibit less aggression and are less likely to \_\_\_\_\_ from peers and learning. Students with poor self-regulation skills may face increased \_\_\_\_\_, emotional, and academic problems, in and outside of school.

- run and peer
- withdraw and behavioral
- move and behavioral
- withdraw and lunch

0

Select the response which contains the two words that make the following statement true. \*

Yoga can help students calm their mind and \_\_\_\_\_ their emotions. Yoga can even help \_\_\_\_\_ students to take time to self-regulate.

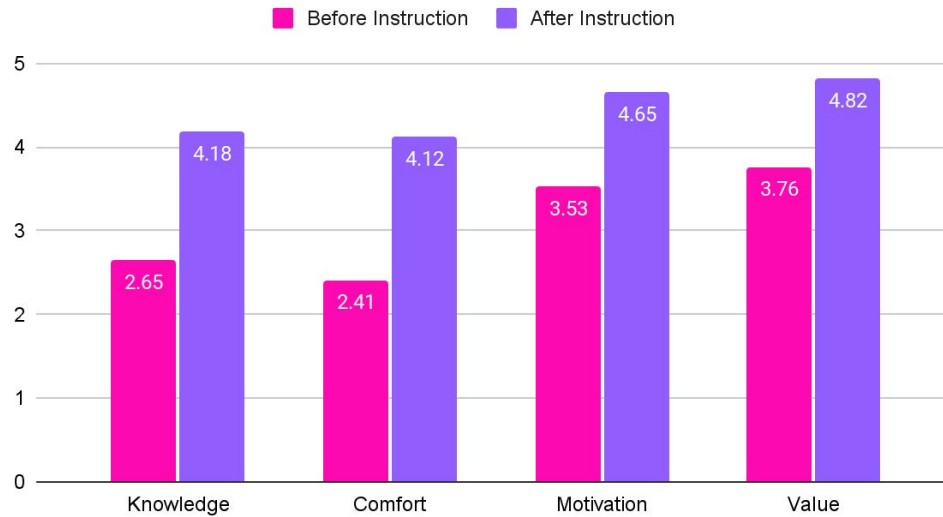
- relate and some
- use and older
- process and young
- understand and all

8



# RETROSPECTIVE RESULTS

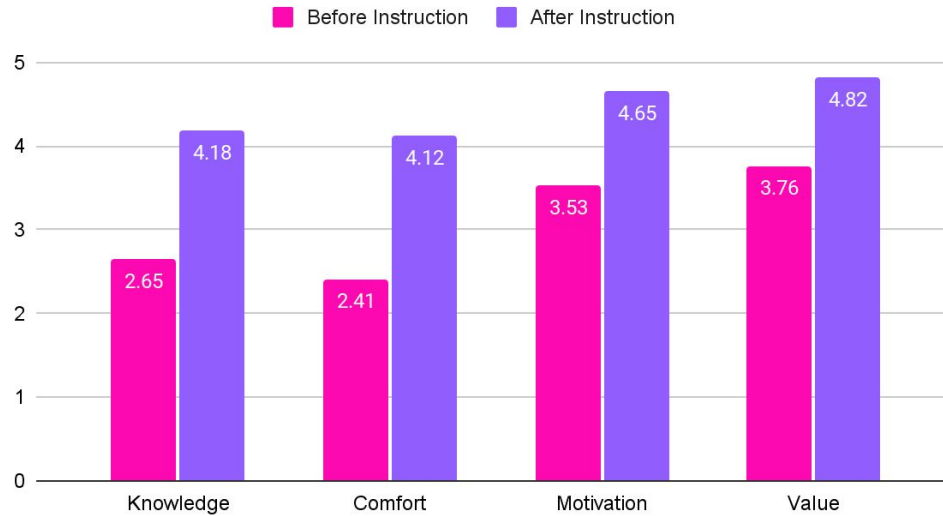
## Before and After Instruction



*Five point Likert scale: Poor to Excellent*

# RETROSPECTIVE RESULTS

Before and After Instruction



$\Delta +1.53$

$\Delta +1.71$

$\Delta +1.12$

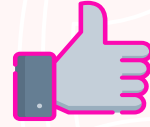
$\Delta +1.06$

# NOTABLE PARTICIPANT QUOTES





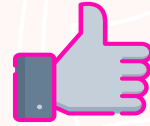
# NOTABLE PARTICIPANT QUOTES



"If I had any criticism, I would say that I would like **more explanation** behind each pose and its **specific benefits**. For example, how specifically does belly breathing help with anger/frustration?"



# NOTABLE PARTICIPANT QUOTES



"If I had any criticism, I would say that I would like **more explanation** behind each pose and its **specific benefits**. For example, how specifically does belly breathing help with anger/frustration?"

"There could have been paragraphs explaining **why** these techniques work best during their **specified scenarios**."

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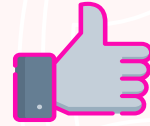
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"I loved the **engagement** it had. The videos were **short** yet **informative**. I loved the little **quizzes** and **graphics** that went with it. It was incredibly **organized** and the material fit nicely together in a **logical order**."



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"I really enjoyed the **blend** of **video types** between real life examples, short animated clips, and your clips with kiddos."



04

# CONCLUSION

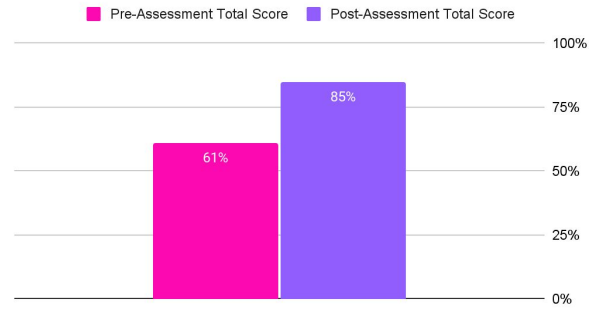
# WAS INSTRUCTION EFFECTIVE?



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## COGNITIVE

Pre vs. Post Assessment Score by % - Overall

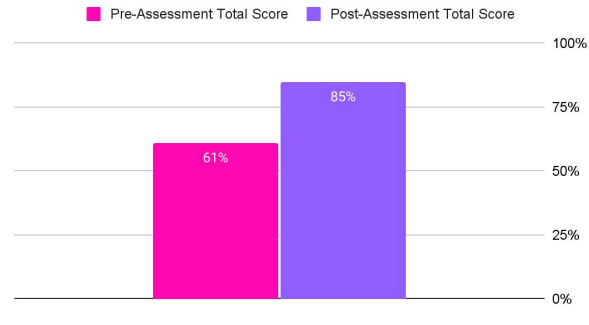


$\Delta +24\%$

# WAS INSTRUCTION EFFECTIVE?

## COGNITIVE

Pre vs. Post Assessment Score by % - Overall



$\Delta$  +24%

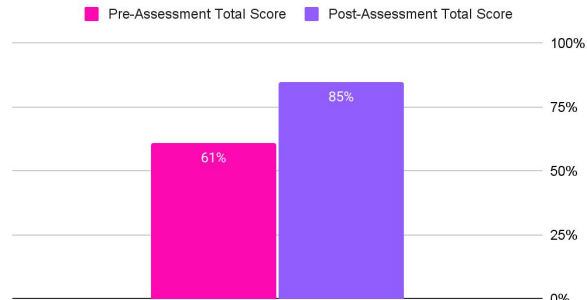


# WAS INSTRUCTION EFFECTIVE?

## COGNITIVE



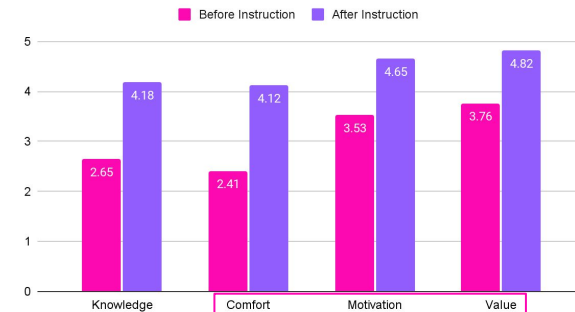
Pre vs. Post Assessment Score by % - Overall



$\Delta +24\%$

## AFFECTIVE

Before and After Instruction

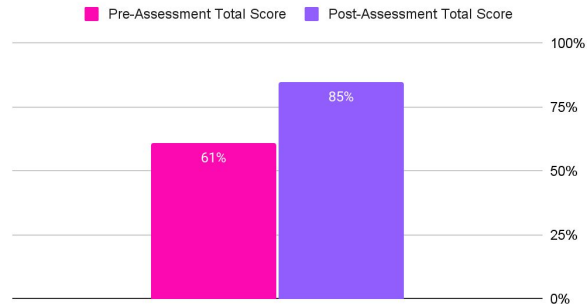


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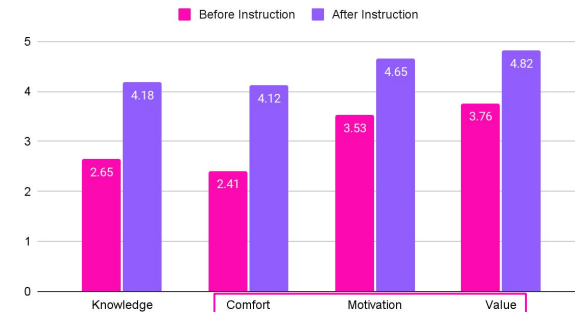


$\Delta$  +24%

## AFFECTIVE



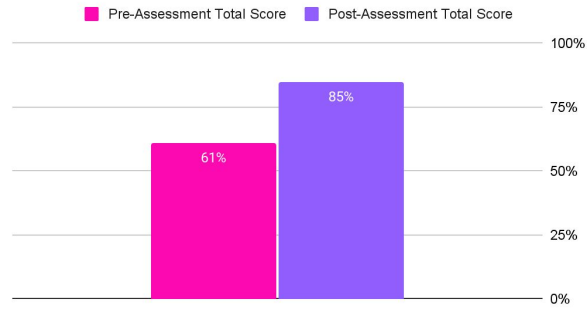
Before and After Instruction



# WAS INSTRUCTION EFFECTIVE?

## COGNITIVE ✓

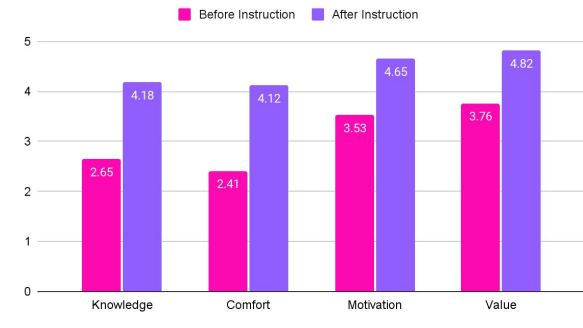
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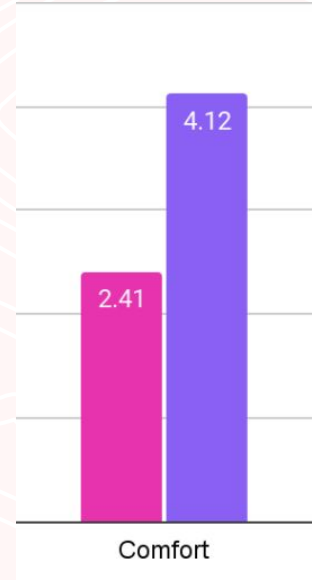
$\Delta +24\%$

## AFFECTIVE ✓

Before and After Instruction



## TERMINAL OBJECTIVE



$\Delta +1.71$

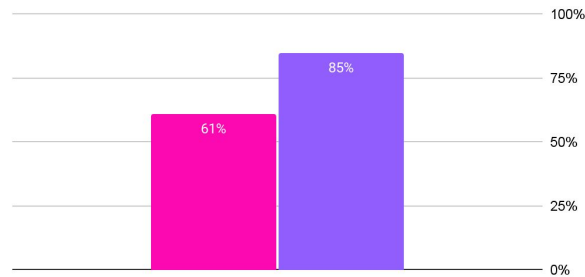
# WAS INSTRUCTION EFFECTIVE?

## COGNITIVE



Pre vs. Post Assessment Score by % - Overall

Pre-Assessment Total Score Post-Assessment Total Score



$\Delta +24\%$

## TERMINAL OBJECTIVE

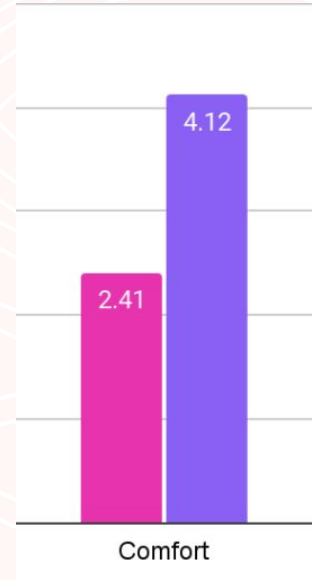
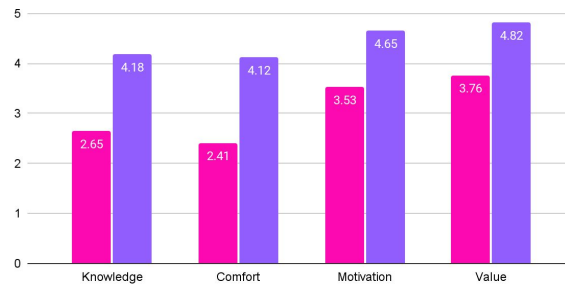


## AFFECTIVE



Before and After Instruction

Before Instruction After Instruction



$\Delta +1.71$

# NOTABLE PARTICIPANT QUOTES



# NOTABLE PARTICIPANT QUOTES

"I now have more **ideas** and **tools** to **use** with my students, and **understand** that **not everyone** is **equipped** with these strategies unless they are **explicitly taught** and practiced. I also think it will help me **bond** and **create a deeper relationship** with my students."



# NOTABLE PARTICIPANT QUOTES

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“I **want** to begin to use these strategies because I **now understand** how **important** they can be to **help students** throughout a normal school day.”

# FINAL THOUGHTS AND TAKEAWAYS



**PATIENCE**



**PERCEPTION**



**ITERATION**



# IMPLICATIONS FOR FURTHER RESEARCH



**Students with disabilities**



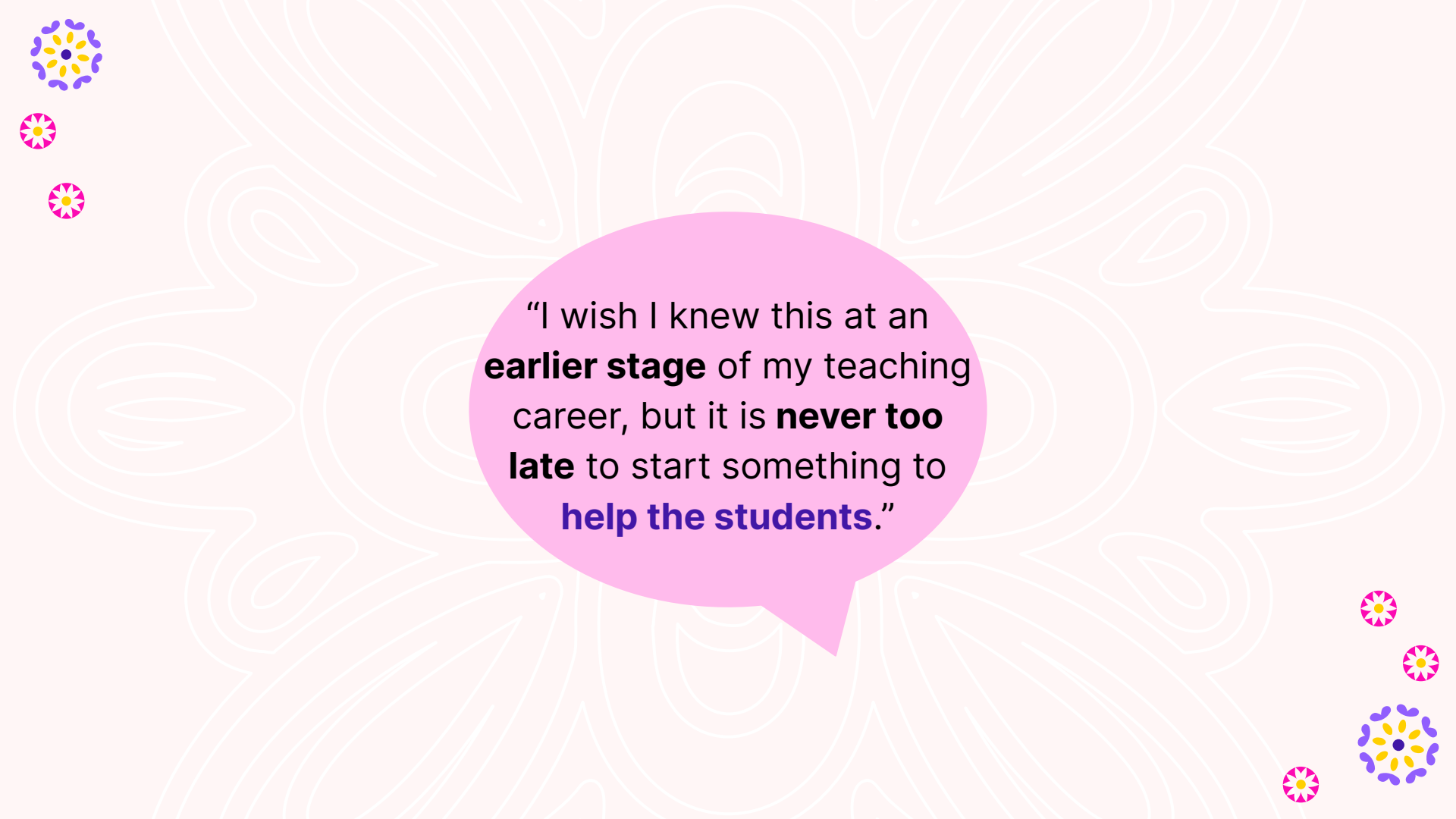
**Scientific information**



**H5P glitch**







“I wish I knew this at an **earlier stage** of my teaching career, but it is **never too late** to start something to **help the students.**”

# SPECIAL THANK YOU

**My Professors and TA: Dr. Ari, Dr. Dan, and Sam**

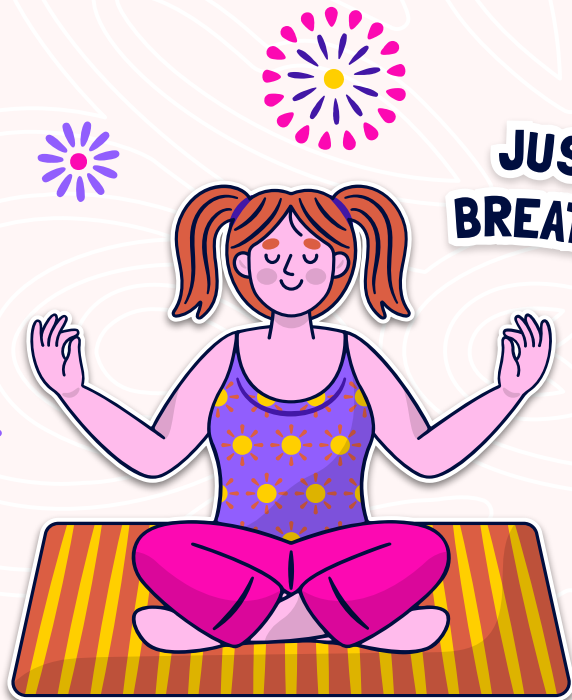
**My Critical Friends: Lawrence, Sherri, and Rie**

**My Extended Critical Friends: Priscilla, NGL, and Jon**

**All my other professors in the LTEC program:  
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**JUST  
BREATHE**

**Mahalo for  
your time!**