



## RESEARCH SUMMARY

### Two-Year Impact of a Mindfulness-Based Program on Preschoolers' Self-Regulation and Academic Performance (2016)

**MindUP™** is an evidence-based program grounded in neuroscience, mindful awareness, social and emotional learning, and positive psychology, providing children with the knowledge and tools they need to manage stress, regulate emotions and face the challenges of the 21st century with optimism, resilience and compassion.



#### What did researchers examine?

Researchers examined whether pre-kindergarten students who received MindUP™ over two years showed any differences in executive function skills, receptive vocabulary and kindergarten literacy skills compared to students who did not receive MindUP™.

#### How did the researchers conduct the study?

Researchers followed two classrooms of students for two years (pre-kindergarten through kindergarten). The program group received MindUP™ in pre-kindergarten and then continued to use the MindUP™ core breathing practices throughout their kindergarten year.

The comparison group received the standard curriculum. The standard curriculum included strategies to support self-regulation, positive classroom behaviors, identification of feelings and emotions.

To monitor implementation of the MindUP™ program, teachers completed surveys to track lesson delivery, rated student engagement during the lessons, and report on the number of times a day that they did the core breathing practices in their classroom with their students.

At the beginning and end of pre-kindergarten, teachers and parents completed assessments that rated students' executive function. Specifically, there were five areas that teachers and parents rated:

- inhibit (for example, "is impulsive")
- emotional control (for example, "becomes upset too easily")
- shift (for example, "is upset by change in plans or routines")
- working memory (for example, "has trouble remembering something, even after a brief period of time")
- planning/organizing (for example, "has trouble carrying out the actions needed to complete tasks")

Students were also given an assessment of English receptive vocabulary at the beginning and end of pre-kindergarten.

At the end of kindergarten, students in both the MindUP™ and comparison groups took a computer-based assessment of their English reading skills.

#### Research Location

Urban elementary school in a large city in the southwest region of the United States.

#### Study Design

Quasi-experimental design

#### Research Participants

- One cohort that received MindUP™ (23 students)
- One cohort that did not receive MindUP™ (24 students)
- All students were included in the study during their pre-kindergarten and kindergarten years
- All students began the study when they were 4 years old
- 52% of students were female
- 85% of students were Hispanic; 9% African-American; and 6% White
- 51% of families identified their language as Spanish; 44% as English; and 4% and both English and Spanish
- 87% of mothers and 69% of fathers reported a high school diploma as the highest level of education obtained. The remaining parents reported completing some high school

#### MindUP™ Teacher Training for this study

- One day intensive MindUP™ training session facilitated by MindUP™ Certified Trainers.





## What did the researchers find?

### Program Implementation

MindUP™ teachers indicated completing all lessons over the pre-kindergarten school year. They reported the level of student engagement in the program to be high. The pre-kindergarten teachers also reported doing the daily breathing practices on a consistent basis, two to three times a day. In kindergarten, the MindUP™ kindergarten teachers continued to implement the breathing practices for two to three times a day.

### Program Outcomes

At the end of the first year of MindUP™, pre-kindergarten students showed improvements in teacher-reported executive function, particularly related to working memory, planning and organizing.

Students in the comparison class showed a decline in executive function. There were no differences found between the MindUP™ and comparison group's receptive vocabulary over the course of their pre-kindergarten year. At the end of kindergarten, the MindUP™ group had higher vocabulary and reading scores compared to the comparison group.

## Final Summary

This is one of the few studies that examines mindfulness practices among young children. Findings from this study suggest that mindfulness practices may be a promising technique that teachers in early childhood settings can use to enhance preschooler's executive function. Further to this, mindfulness practices may also positively impact academic functioning in kindergarten.



### Original Research Article

Thierry, K. L., Bryant, H. L., Nobles, S. S., & Norris, K. S. (2016). Two-year impact of a mindfulness-based program on preschoolers' self-regulation and academic performance. *Early Education and Development, 27*(6), 805-821.

[Access the original research article here.](#)

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