



RESEARCH SUMMARY

Enhancing Cognitive and Social-Emotional Development Through a Simple-to-Administer Mindfulness-Based School Program for Elementary School Children: A Randomized Controlled Trial (2015)

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 students who received MindUP™ in their classrooms experienced improved executive function (the ability to organize, sequence and regulate behavior), stress physiology, well-being, prosocial behaviors, and school success compared to students who received the regular social responsibility curriculum.

How did the researchers conduct the study?

Researchers randomly assigned 2 classrooms to receive the MindUP™ program (MindUP™ classrooms) and 2 comparison classrooms that would continue to do their regular social responsibility program.

Before being randomly assigned to the MindUP™ program (baseline), and at the end of the program (post-program), five different data sources were collected from students. These included:

1. A student self-report survey assessing empathy, perspective taking, optimism, emotional control, school self concept, depressive symptoms, mindfulness, and social responsibility
2. Computer tasks that assessed executive functions
3. Cortisol samples taken all within one day (collected at morning arrival, before lunch, and end of the school day) to assess stress physiology. This was done at the beginning and again at the end of the study.
4. Peer identifications of classmates who exhibit prosocial behaviors (sharing and cooperating, kindness, trustworthiness, helping, perspective-taking), antisocial/aggressive behaviors (fighting, breaking rules), and peer acceptance (liking)
5. Year-end math grades

MindUP™ teachers implemented the 12-week curriculum. The curriculum included mindfulness training, as well as lessons focused on providing opportunities for students to practice optimism, gratitude, perspective-taking, and kindness to others. MindUP™ teachers completed weekly implementation diaries in which they recorded how many of the program components (lessons and core breathing practices) they did with their students. They also completed surveys about their experience of using the MindUP™ program. Comparison teachers implemented the regular social responsibility curriculum, while also keeping track of the number of social responsibility activities they completed with their students each week via implementation diaries.

Research Location

A large urban public school district in British Columbia, Canada

Study Design

Randomized Controlled Trial (RCT)

Research Participants

- 4 classrooms of combined 4th and 5th graders (ages 9 -11) across 4 different schools
- 2 classrooms (48 students) in which the teachers implemented the MindUP™ curriculum; 2 comparison classrooms (51 students) in which the teachers did not implement MindUP™ but instead implemented a social responsibility curriculum
- 46% of the students were female curriculum without any trauma-informed or MindUP™ training
- 63% of students reported learning English as their first language; 27% learned an East Asian language as their first language; and 10% learned other first languages (for example, Spanish, Russian, Polish)

MindUP™ Teacher Training for this study

- One day intensive MindUP™ training session facilitated by MindUP™ Certified Trainers.
- An afterschool MindUP™ booster session midway through the school year



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What did the researchers find?

Program Implementation

Based on the teacher surveys and implementation dairies, teachers in the MindUP™ classrooms completed all of the MindUP™ lessons. One MindUP™ teacher reported completing an average of 81% of the core practices in a given week, and the second MindUP™ teacher reported completing an average of 95% of the core practices in a given week.

Teachers in the comparison classrooms reported implementing activities from the social responsibility program for each of the 12 weeks.

Student Outcomes

Students who received the MindUP™ program, compared to those who did not receive MindUP™, reported improved:

- empathy
- perspective-taking
- optimism
- emotional control
- school self-concept
- mindfulness
- depressive symptoms
- attention
- stress physiology

Students indicated higher numbers of their classmates who they liked and who engaged in behaviors of sharing and cooperating, being kind, being trustworthy, helping others, and taking another's perspective. They also reported fewer students who engaged in antisocial/aggressive behaviors (fighting, breaking rules). Finally, MindUP™ students had higher year-end math grades.

Final Summary

This study is among the few that have examined the effectiveness of mindfulness-based social and emotional learning (SEL) programs for children using a wide range of cognitive-behavioral, neurophysiological, and psychological indicators from multiple sources. The findings demonstrate that mindfulness attention training, in combination with opportunities to practice optimism, gratitude, perspective taking, and kindness to others, improves not only cognitive control skills (attention), but also leads to significant increases in social and emotional competence and dimensions of well-being, including stress physiology. Further research is needed to understand whether mindfulness training plays a direct or indirect role in fostering the development of both cognitive control skills and social and emotional competence and well-being.

Original Research Article

Schonert-Reichl, K. A., Oberle, E., Lawlor, M. S., Abbott, D., Thomson, K., Oberlander, T. F., & Diamond, A. (2015). Enhancing cognitive and social-emotional development through a simple-to administer mindfulness-based school program for elementary school children: A randomized controlled trial. *Developmental Psychology, 51*, 52–66.

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

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