

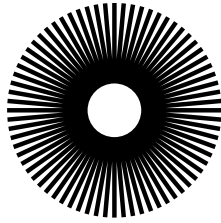
**OPERATION
PREFRONTAL
CORTEX**

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SCHOOL
MINDFULNESS
PROGRAM

01 / 08
VERSION 01

SCHOOL MINDFULNESS PROGRAM



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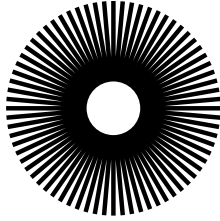
MINDFULNESS FOR LEARNING

School is one of the most formative times in a person's life, affecting everything from work to sociability into adulthood. Students, parents, and teachers share the aspiration that school be a place where young people achieve their greatest potential. In recent years a growing body of research is confirming that mindfulness oriented meditation has immense benefits for students.

- Meditation adds volume and thickness to the prefrontal cortex (the region of planning complex cognitive behavior, personality expression, decision making, and moderating social behavior), and hippocampus (the region governing memory & learning), shrinking the amygdala (the region that controls emotional processing). [1]
- It has been shown to reduce stress, anxiety, reactivity and bad behaviour, improve sleep and self-esteem, and bring about greater calmness, relaxation, the ability to manage behaviour and emotions, self-awareness and empathy. [6]
- Mindfulness contributes directly to the development of cognitive and performance skills and executive function. It can help young people pay greater attention, be more focused, think in more innovative ways, use existing knowledge more effectively, improve working memory, and enhance planning, problem solving, and reasoning skills. [6]
- Students tend to experience greater well-being; being more mindful tends to accompany more positive emotions, greater popularity and having more friends, and less negative emotions and anxiety. Mindfulness has beneficial results on emotional wellbeing, mental health, ability to learn and even the physical health of their students. [6]
- Programs are relatively cheap to introduce, have quick impact, can fit into a wide range of syllabus, and are enjoyable and civilizing for pupils and staff. They are not invasive or harmful.

MINDFULNESS FOR SAFETY

The effects of meditation go beyond academic betterment but also making schools a safer environment. Often the ills of society find their way into school. The Ontario provincial report, Review of the Roots of Youth Violence [10], has shown that schools are often sites of violence for youth from bullying, physical threats, robbery/extortion, sexual assault and harassment, to the institutional violence caused by the over-policing of racialized and Indigenous youth behavior:



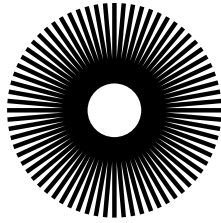
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- More fights at school and school bullies. Fights from school carry over to the streets. Being bullied has led many youth to travel far distances to avoid attending the same schools as a bully. Or, they skip school as an avoidance mechanism.
- Twenty-one per cent of Toronto middle school students and 16 per cent of Toronto high school students are “sometimes” or “often” threatened with physical harm while at school.
- Thirteen per cent of Toronto high school students and 50 per cent of street youth had used force or the threat of force to rob someone.
- Among Grade 9 female students, 46 per cent reported that in the previous three months someone had made an unwanted sexual comment, gesture or joke towards them. Another 30 per cent claimed they had been subjected to unwanted sexual touching.
- Schools that have a zero-tolerance policy and kick youth out for minor things, a police force that is prejudiced against youth and harasses and intimidates them and a criminal justice system that emphasizes punishment and can lead youth to become hardened and professional criminals.

As the majority of the violent encounters by youth go unreported to police, parents, teachers or other adult authority figures, youth need tools to help them gain greater control over themselves and their relationship to their school environment. Meditation is a tool that has been proven effective in helping youth to reduce their incidents of violence, feel safer, and ultimately, learn. A Harvard Medical School study found that mindfulness based stress reduction activities increased the “gray matter concentration in brain regions involved in learning and memory processes, emotion regulation, self-referential processing, and perspective taking.”

- After introducing their Quiet Time meditation program in 2007, Visitacion Valley Middle School in San Francisco (one of the most violent neighborhoods in the city) experiences a 45% reduction in suspensions within the first year. The daily attendance increased to 98% within four years (some of the highest in the city), and today 20% of graduates are admitted to the highly academic high school in the city – before it was rare for even one student to be accepted. On top of this the youth reported the highest happiness levels in San Francisco.

[9]



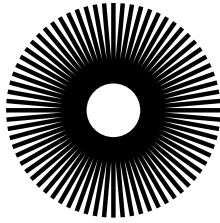
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- The Robert W. Coleman Elementary School in West Baltimore introduced a Mindful Moment Room to send kids to meditation instead of detention. The elementary school now experiences zero suspensions. [8]

MINDFULNESS FOR TEACHERS

Schools interested in implementing mindful awareness practices in their classrooms are encouraged to start with the teachers learning and practicing mindfulness strategies for themselves. This is a two fold approach addressing student learning and teacher stress.

- In social learning theory, behaviour modelling is the demonstration of a desired behaviour. A teacher's presence in a classroom and the capacity to build relationships is viewed more important than any instruction they can offer.
- That stress Recent studies have shown that teaching is one of the most stressful professions. That stress has detrimental effects on the brain. Stress increases the size of the amygdala, making it more receptive to stress. It hard-wires pathways between the hippocampus and the amygdala that create a constant flight or flight state.[15] The pre-frontal cortex shrinks causing a loss of cognitive abilities, and more prolonged stress exposure causes architectural changes in prefrontal dendrites [12]. Mindfulness-based self-care practices add volume and grey matter to the prefrontal cortex & hippocampus also shrinking the amygdala, helping restore balance in educators' lives enabling them to be present for their students.
- In a 2016 study by UBC, researchers found a potential link between student stress and teacher burnout, "teachers need adequate resources and support in their jobs in order to battle burnout and alleviate stress in the classroom. If we do not support teachers, we risk the collateral damage of students." - Kimberly SchonertReichl, UBC education professor [13]
- A randomized controlled pilot of a modified Mindfulness-Based Stress Reduction course adapted specifically for teachers show significant reductions in psychological symptoms and burnout, improvements in observer-rated classroom organization and performance on a computer task of affective attentional bias, and increases in self-compassion." [14]



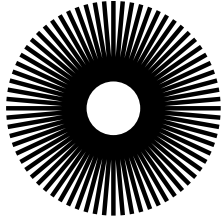
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- A New York City mindfulness pilot program of 224 teachers from 36 elementary schools in low income/ high risk students found confidence in their teaching ability, physical/psychological health. The teachers were independently measured finding improvement in anger/emotional management, and lower psychological distress and sense of time urgency. The study also found improvements in the emotional climate of the class room and increased class organization. The teachers smiled more, asked more questions, remained curious about student misbehaviour rather than administering punishment. [16]

MINDFULNESS INITIATIVES THAT WORK

Operation Prefrontal Cortex has partnered with [Mindfulness Everyday](#) (a Canadian charitable organization delivering mindfulness in education programs since 2009, with a long-standing partnership with the Toronto District School Board) to administer an age-appropriate evidence-based [smartEducation](#) program, managed by [smartUBC](#), for students, educators, and parents.

- **Providing teacher training in mindfulness techniques:** Teaching educators the skills and techniques through experiential learning and practice to embody the qualities that we would like to see in our children and youth. The training will provide teachers with the skill set to authentically pass on their knowledge to both educators and students.
- **A customized, age-appropriate, secular protocol for students:** A mindfulness program for students that can be implemented into existing curriculum taught to the SMART participants to deliver in their classes fostering healthy and supportive relationships, cultivate emotional balance and develop stress management techniques for the students.
- **Providing mindful parenting information sessions on techniques that can be used in the home to support the mindfulness initiatives being provided in the schools:** Experiential workshops that explain what mindfulness is, what are the benefits, what is the relevance for education, and how it can be practiced will be provided. Skills and techniques for parents and care-givers to practice with their families to support the mindfulness program in schools will be provided.
- **Conducting a school-wide Mindful Moment:** Working with staff to determine content and best time of day. Supporting the school wide moment with opportunities for students to continue the work in their free school time by allocating a quiet, calming room to support self-regulation, lunch and after school mindful movement, yoga or Tai Chi programs.



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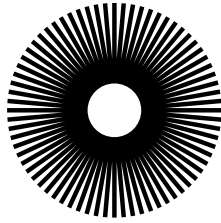
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SUPPORT

We encourage you to bring mindfulness to your school. Students, parents and teachers can ask start a mindfulness program using this document to serve as a resource of information. You can donate to help fund the mindful school pilot program here: <https://ca.gofundme.com/Op-PFC> Help be the change that will make our world a better and safer place to live.

Thank you,

Julien Christian Lutz
Founder, Operation Prefrontal Cortex
www.Op-PFC.com



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