



**Supporting the Mental Health and Well-Being of Students with LDs through Integra Mindfulness Martial Arts (Part I) and**

**Mindfulness Teaching Practices: Implementing the Integra Mindfulness Martial Arts Program in the Trillium Lakelands District School Board (Part II)**

**Viewers' Guide**



## Supporting the Mental Health and Well-Being of Students with LDs through Integra Mindfulness Martial Arts (Part I) and

## Mindfulness Teaching Practices: Implementing the Integra Mindfulness Martial Arts Program in the Trillium Lakelands District School Board (Part II) Viewers' Guide

This two-part video introduces an innovative, evidence-based mindfulness training program as a means of addressing self-regulation challenges in students with learning disabilities (LDs). Part I presents the Integra Mindfulness Martial Arts (MMA) program, an evidence-based intervention to support the mental health and well-being of students with LDs. Part II illustrates how educators in the Trillium Lakelands District School Board (TLDSB) are implementing this best practice into the school system. The Integra MMA program has been integrated into the Learning Strategies course within the secondary school system, with plans for expansion to the elementary level.

This guide provides viewers with the opportunity to reflect on their thoughts and practices relating to mindfulness, both individually and as a group. The viewers' guide includes the following sections:

- *What Does Mindfulness Mean to Me?* is a pre-viewing activity that allows viewers to reflect on what mindfulness is and is not, as well as how they might incorporate mindfulness and contemplative practice in the classroom.
- *Integrating Mind and Body* is a viewing activity that allows viewers to record key ideas on how Integra MMA helps students with LDs, from both the teacher and student perspective.
- *Research to Practice: Deepening Your Understanding of How Integra MMA Supports Students with Learning Disabilities* is a post-viewing activity that allows viewers an opportunity to learn about a recent research study on MMA, to reflect on their professional practice and the pedagogical role of mindfulness, to develop a list of potential mindfulness strategies, and to consider how these strategies could be used in the classroom.
- *Mindful Eating* is an activity that encourages participants to engage the senses and to practice eating with intention and attention.
- *Appendix A* identifies key messages from the videos that a facilitator may use to initiate additional discussions and to ensure that all key concepts are understood.
- *Appendix B* summarizes the research behind the Integra Mindfulness Martial Arts program.
- *Appendix C* includes key terms that were mentioned during the videos, along with their definition.



## What Does Mindfulness Mean to Me?

### *Pre-viewing Activity*

Prior to watching the videos, complete the column “before viewing” in the graphic organizer below. After watching the videos, you may have a different perspective on mindfulness and how you can incorporate mindfulness into your teaching practice and daily classroom activities. Record your observations and thoughts in the “after viewing” column. When you have completed the graphic organizer, discuss your recorded points with a partner or in a small group.

	Before Viewing	After Viewing
<b>Mindfulness is . . .</b>		
<b>Mindfulness is not . . .</b>		
<b>How I incorporate mindfulness in the classroom . . .</b>		

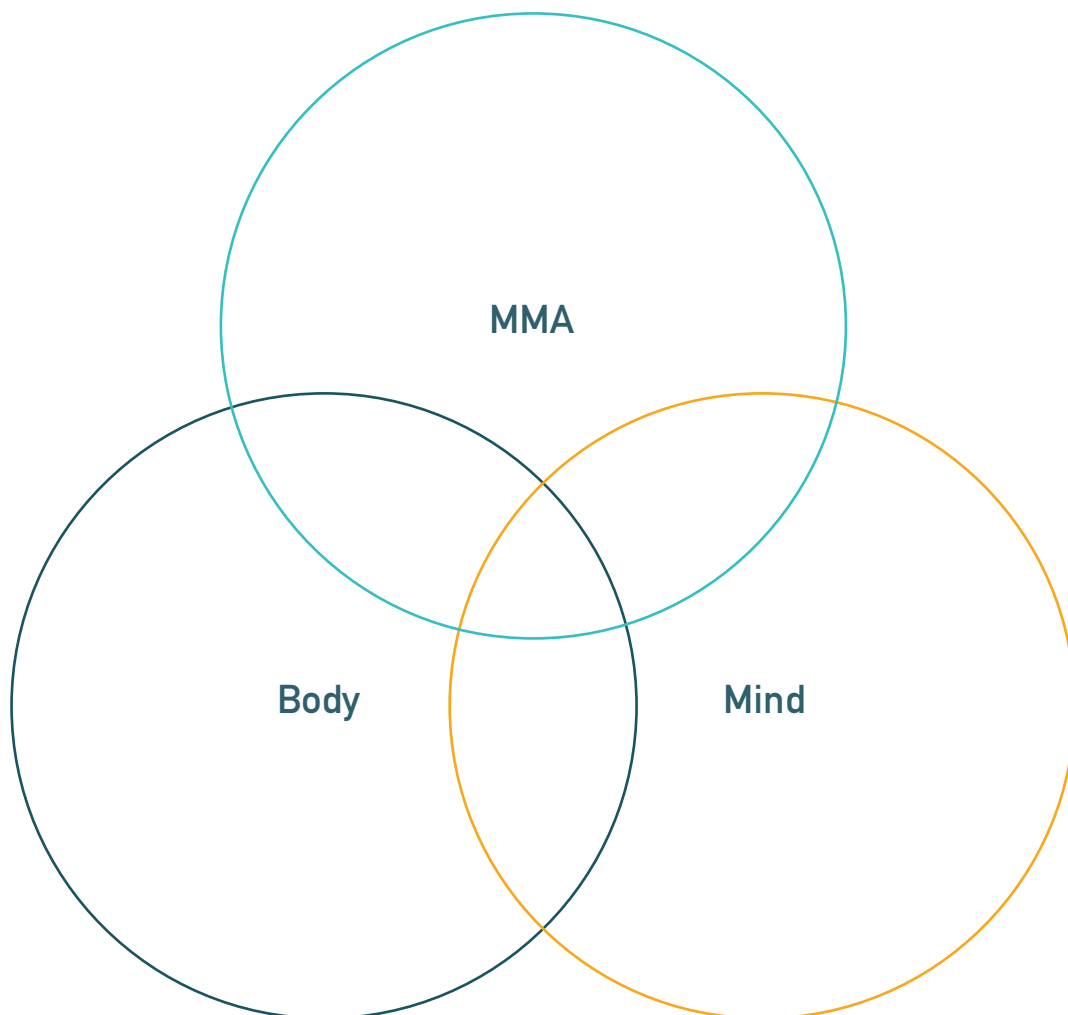
## Integrating Body and Mind

### *Viewing Activity*

The Integra Mindfulness Martial Arts (MMA) program is a treatment modality that is inclusive of the whole person. It is a therapy that focuses on the mind - cognition, affect, attitudes, behavior and self-instruction, and the body - wellness, nutrition, breathing, self-control, body language, body flexibility, and body recognition, both under the rubric of Martial Arts Training. Both psycho-educational and experiential, Mindfulness Martial Arts is an interactive pedagogy that helps participants “live” what they are learning. Moreover, it is a therapy that engages students through their motivation to become martial artists.

The Integra MMA program is holistic in nature and makes the connection that body and mind are interdependent in health. This is significant in a population of youth (especially students with nonverbal LDs) who are often estranged from their bodies because of their disability and previous failures in sport or other areas in which co-ordination is required.

While watching the videos, pay attention to how the integration of mind and body in the MMA program benefits students with LDs; use the graphic organizer below to record key points.



# Research to Practice: Deepening Your Understanding of How Integra MMA helps Students with Learning Disabilities

## *Application Activity*

Integra has partnered with academic institutes for over a decade to research and evaluate the outcomes of the Integra MMA Program. Dr. Judy Wiener and Dr. Joe Ducharme and their respective students at OISE initially partnered with Integra to look at changes in anxiety and impulse control (Haydicky et al, 2012). Dr. Karen Milligan, now at Ryerson University, initiated a comprehensive multi year plan of study to understand the impact of Integra MMA, including controlled mixed method studies, field trials, and most recently evaluations of changes in the brain as a function of the program.

The results of a recent published study by Dr. Milligan and colleagues are summarized below:

- Integra MMA has a positive impact on self-awareness, e.g. in an interview examining the ability of youth to talk about negative or stressful life experiences, youth demonstrated increased ability to differentiate and identify emotions and talk about their thoughts.
- MMA has a positive impact on behavioural regulation, e.g. on a trail-making task that required youth to shift between two concepts, youth showed improved ability to shift or flexibly respond from pre- to post-treatment.
- Mindfulness strategies were reported to improve youth's self-awareness and this enabled them to be calm, stop and think, and change patterns of automatic responding.

🔗 [Click here to access the research study, "Mindfulness Martial Arts: An Innovative Treatment for Youth with Learning Disabilities and Co-occurring Mental Health Difficulties"](http://www.integra.on.ca/mma.pdf) (www.integra.on.ca/mma.pdf).

With a partner or in a small group, discuss the following reflective question and record your responses.

**Reflective question: What types of mindfulness strategies could be used in the classroom and how could I/we incorporate these strategies?**



### Strategy

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### Implementation

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➤ [Click here to access the Vanderbilt University website and learn about mindfulness activities in the classroom](http://www.cft.vanderbilt.edu/guides-sub-pages/contemplative-pedagogy)  
([www.cft.vanderbilt.edu/guides-sub-pages/contemplative-pedagogy](http://www.cft.vanderbilt.edu/guides-sub-pages/contemplative-pedagogy)).



## Mindful Eating

### *Application Activity*

A great way to introduce students to mindfulness is through mindful eating. Mindful eating is eating with intention and attention; it is an experience that uses the senses.

This activity works well with a large or small group of students or individuals. Once you have completed the activity, answer the reflection question at the end of this activity.

- Sight – place a raisin in the palm of your hand and look carefully at the raisin. What colour is it? What size is it? What shape is it?
- Touch – how does the raisin feel in your hand? Place the raisin between your thumb and finger; what is the texture of the raisin? Is the raisin warm or cold?
- Aroma – hold the raisin to your nose and breathe in; does the raisin have an aroma? Do you have a sensation in your mouth when you smell the raisin? How does your stomach feel?
- Taste – bring the raisin slowly to your lips and pause; what are you experiencing in your mouth? Place the raisin on your tongue and leave it there for a few moments; what does your mouth want to do with the raisin? Feel the texture of the raisin on your tongue. Now bite slowly – what do you taste? As you slowly taste the raisin, try not to swallow right away. How has the texture changed? How has the taste changed? Feel the food as you swallow – how does your stomach feel?

**Reflective question: How did mindful eating compare to how you usually eat?**





## Appendix A

### Key Messages and Concepts

#### Supporting the Mental Health and Well-Being of Students with LDs through Integra Mindfulness Martial Arts (Part I):

- Integra Mindfulness Martial Arts, also known as MMA, is a program that was developed at the Integra Program of the Child Development Institute, an accredited children's mental health agency.
- Integra MMA combines martial arts training with mindfulness meditation, yoga and cognitive behaviour therapy. The program address self-regulation challenges in students with learning disabilities (LDs) and mental health concerns (such as anxiety, depression or behavioural concerns).
- Integra MMA has partnered with Dr. Karen Milligan of Ryerson University, as well as other researchers from McMaster University and the University of Toronto to evaluate program outcomes. Research findings have shown that participation in MMA has decreased behaviour problems in youth diagnosed with ADHD, and youth with anxiety reported less anxiety, compared to youth on a waitlist who did not participate in MMA.
- Current research has been using EEGs to explore how MMA is changing the brain. While research is in its preliminary stages, results are promising and suggest improvements in attention and emotion regulation at the level of the brain.
- These improvements give students the ability to be more focused and in control of their behaviour, and confident in their ability to overcome the challenges that come their way. Through the program, the skill of awareness and the attitude of acceptance are taught as a means of improving their emotional regulation.
- The program helps students relieve stress through physical activity, as well as explicit teaching of stress management skills. It teaches them to meditate, in order to notice and manage their difficult emotions, experiences and thoughts. With increased awareness of their thoughts and feelings, students become more effective on noticing how those can affect their behaviours.
- A key skill in the program is the Mindful moment, a short meditation aimed at better understanding one's thoughts and feelings. Students are coached to use mindful moments in difficult times, such as before a test or when they are upset.
- Another key skill is the use of mindful self talks - phrases students can tell themselves as a means of accepting and coping with difficulty.
- In the Integra MMA class, students are taught the concept of "fight, flight or freeze" to describe unhelpful responses to difficult situations. The concepts can also be reinforced within martial arts training, helping students learn to respond in a helpful way, regardless of whether they're happy, sad, and angry or frustrated.
- Students can face difficulties in class every day. The skills taught in the Integra MMA program are also practiced during the program so that the skills can be generalized to everyday life.
- Through the Integra MMA program, students with LDs develop sustainable strategies for long-term success no matter where life takes them.



## Mindfulness Teaching Practices: Implementing the Integra Mindfulness Martial Arts Program in the Trillium Lakelands District School Board (Part II):

- Haliburton Highlands Secondary School, in the Trillium Lakelands District School Board, was the first school to offer the Integra Mindfulness Martial Arts (MMA) program. Students receive the twenty-week program through their Learning Strategies course, receiving a course credit in the process.
- Instructors have been trained by Integra to deliver the program. In the Integra MMA classes, students are taught yoga where they are asked to hold challenging poses. The instructors make the connection between persisting through uncomfortable poses, with overcoming everyday challenges. The training also includes guided meditations, which develops in students the skill of being aware and accepting of their emotions.
- Mindful moment involves mindfully taking a moment to connect with the breath. This allows for an awareness of one's thoughts and feelings. Mindful self-talk can then be used as a strategy to help students cope with stressful or uncomfortable situations that arise at school. Integra MMA lessons end with martial arts training in Muay Thai kickboxing and Jiu Jitsu ground grappling. The students, especially those with LDs, thrive in this environment where they are able to take calculated risks in a safe, supportive environment, something they may avoid in other social settings.
- Students who participate in the Integra MMA program learn skills in self-regulation, self-control and mindfulness, which allow them to better manage their emotions and interactions with others.
- The Integra MMA program is a unique therapeutic model, which gives students the same results as if they were attending counselling. The program offers students essential regulation skills not found in the curriculum.

For more information on the Integra Mindfulness Martial Arts Program please contact Trish McKeough, MMA coordinator, at [tmckeough@childdevelop.ca](mailto:tmckeough@childdevelop.ca) or (416) 603-1827 ext. 5241.





## Appendix C

### Summary of Research on Mindfulness Approaches with Children and Adolescents

Various forms of mindfulness training have been used with children, adolescents and adults for a range of purposes. These include general benefits for the average person and clinical benefits as part of a treatment process. The majority of research so far has been on adults, but there is a growing body of research on using mindfulness approaches with children and adolescents.

David S. Black summarized research in Black, D.S. (2015), *Mindfulness Training for Children and Adolescents: A State-of-the-Science Review*, a chapter in K. Brown, D. Cresswell, R. Ryan (Eds.), *Handbook of Mindfulness: Theory and Research*. New York: Guilford Press, 283-310.

Black completed a comprehensive review of research published between January 1966 and March 2013. He concluded that

**“The currently available studies support the conclusion that mindfulness training is efficacious for some neurocognitive, psychosocial, and psychobiological outcomes, and that this training approach is feasible and acceptable for diverse groups of youth, with no published reports of treatment contraindications.” (p.303).**

However, Black called for further research, since “high-quality evidence on mindfulness training for youth is relatively sparse, based on an array of training programs, and many studies are plagued by methodological weaknesses.”

Despite this he reflected, “Evidence is strengthening in specific areas, especially in executive function, depressive and anxiety symptoms, and cardiovascular physiology.” (p. 304).

In addition to the research work suggesting the effectiveness of mindfulness training for youth, Integra MMA has been studied for the past 10 years. Lead researcher Dr. Karen Milligan of Ryerson University has been working in partnership with colleagues at the University of Toronto, Ryerson University and McMaster University, to evaluate the effectiveness of MMA with youth. One study used a ‘matched Waitlist control design’ and found improved focus for youth with ADHD, and decreased anxiety for youth with anxiety, compared to youth who didn’t receive the program.

A field study in Haliburton found that compared to waitlist controls, when Integra MMA has been implemented in school settings it resulted in improved attendance and school-related self-esteem. They also found that participation in MMA significantly decreased ‘thinking errors’ such as thinking something is “all your fault”, or things will be bad forever, or blaming other people for your problems. The newest research, partnering with Ryerson University and McMaster University, is focused on measuring changes in the brain and heart, compared to waitlist controls. Youth are hooked up to EEG machines and heart rate monitors before and after receiving the program. The preliminary data is suggesting that changes are occurring in the strength and shape of brain waves. This data suggests that MMA participants are able to put more energy into focusing their attention.

In summary, to date this research on Integra Mindfulness Martial Arts is providing ongoing evidence for:

- Improved focus for youth with ADHD.
- A decrease in anxiety for youth with anxiety.
- Improved attendance and school-related self-esteem.
- Decrease in 'thinking errors' such as thinking that something is "all your fault", or blaming others.
- Change in brain wave patterns suggesting increased ability to direct mental energy into focusing.

Dr. Karen Milligan (Ryerson University), Paul Badali (Integra) and Flavia Spiroiu (Ryerson) co-authored a study, *Using Integra Mindfulness Martial Arts to Address Self-regulation Challenges in Youth with Learning Disabilities: A Qualitative Exploration*, which is published in the Journal of Child and Family Studies.

#### References:

Black, D.S. (2015), Mindfulness Training for Children and Adolescents: A State-of-the-Science Review, K. Brown, D. Cresswell, R. Ryan (Eds.), *Handbook of Mindfulness: Theory and Research*. New York: Guilford Press, 283-310.

Haydicky, J., Wiener, J., Badali, P., Milligan, K., Ducharme, J.M. (2012) Evaluation of a Mindfulness-based Intervention for Adolescents with Learning Disabilities and Co-occurring ADHD and Anxiety. *Mindfulness*, 3, 151-164.

Milligan, K., Badali, P., Spiroiu, F. (2015), Using Integra Mindfulness Martial Arts to Address Self-regulation Challenges in Youth with Learning Disabilities: A Qualitative Exploration, *Journal of Child and Family Studies*, 24, 562-575.



## Appendix C

### Glossary of Terms

<b>Cognitive-behavioural therapy</b>	A short-term, goal-oriented psychotherapy treatment that takes a practical problem solving approach with a goal of changing patterns of thinking or behaviour.
<b>Dojo</b>	A Japanese word for a training place for martial arts.
<b>Jiu jitsu</b>	A Japanese martial art, which was also subsequently adapted in Brazil.
<b>Martial Arts</b>	Combat practices that have traditional codified systems, and may be used for self-defense, or for mental, physical, and/or spiritual development.
<b>Mindfulness</b>	The practice of paying attention to and accepting the present moment, deliberately and without judgment.
<b>Mindfulness Martial Arts</b>	A therapy approach developed at Integra in 2002 by Integra Child & Family Therapist, Paul Badali, for youth with LDs and mental health issues (LDMH). It combines martial arts, mindfulness meditation, and cognitive behaviour therapy.
<b>Mindful Moment</b>	A short, mini-meditation used to get in touch with one's experience is, and to become aware of any thoughts or feelings that are present. The mindful moment is not designed to "fix" things, but rather to help the student understand his/her experience so that the student can respond constructively instead of reacting in an unhelpful way.
<b>Mindful Self-talk</b>	Phrases that students are taught to use to help them cope with or persist in a given situation. Examples include "this will pass" or "let it go".
<b>Yoga</b>	A set of practices involving physical postures and meditation, which originated in India.



## Relevant Resources

- ▶ **Click here to access the results of a research study through Integra, “Mindfulness Martial Arts: An Innovative Treatment for Youth with Learning Disabilities and Co-occurring Mental Health Difficulties”**  
([www.integra.on.ca/research8.htm](http://www.integra.on.ca/research8.htm)).
- ▶ **Click here to access a research study on Integra’s Mindfulness Martial Arts Program, “Mindfulness Training for Adolescents with Learning Disabilities”, by Jillian Haydicky, Judith Wiener, Paul Badali, Karen Milligan & Joe Ducharme**  
([www.tspace.library.utoronto.ca/bitstream/1807/24228/6/Haydicky\\_Jillian\\_A\\_201003\\_MA\\_thesis.pdf](http://www.tspace.library.utoronto.ca/bitstream/1807/24228/6/Haydicky_Jillian_A_201003_MA_thesis.pdf)).
- ▶ **Click here to access an article on Integra’s MMA program, by the Hospital for Sick Children, “The way of the warrior: How mindfulness builds resilience”**  
([www.aboutkidshealth.ca/En/News/NewsAndFeatures/Pages/The-way-of-the-warrior-how-mindfulness-builds-resilience.aspx](http://www.aboutkidshealth.ca/En/News/NewsAndFeatures/Pages/The-way-of-the-warrior-how-mindfulness-builds-resilience.aspx)).
- ▶ **Click here to access information the “Mindfulness for Kids” program, offered by the Learning Disabilities Association of Toronto District**  
([www.LDATD.on.ca/programschildren-teensmindfulness-for-kids](http://www.LDATD.on.ca/programschildren-teensmindfulness-for-kids))
- ▶ **Click here to access a video on the LD@school website, “Lessons Learned: Personal Stories of Learning Disabilities, Resilience and Mental Health”**  
([www.LDatSchool.ca/socialemotional-development/lessons-learned-personal-stories-of-learning-disabilities-resilience-and-mental-health](http://www.LDatSchool.ca/socialemotional-development/lessons-learned-personal-stories-of-learning-disabilities-resilience-and-mental-health)).
- ▶ **Click here to read an evidence-informed summary on the LD@school website, “Promoting Social and Emotional Competence Through Mindfulness”, by Drs. Jillian Haydicky and Judith Wiener**  
([www.LDatSchool.ca/self-regulation/section-title-promoting-social-and-emotional-competence-through-mindfulness](http://www.LDatSchool.ca/self-regulation/section-title-promoting-social-and-emotional-competence-through-mindfulness)).



Thank you for watching *Supporting the Mental Health and Well-Being of Students with LDs through Integra Mindfulness Martial Arts and Mindfulness Teaching Practices: Implementing the Integra Mindfulness Martial Arts Program in the Trillium Lakelands District School Board* as well as for using this viewers' guide.

At this time, we invite you to share your thoughts and comments relating to this video; the feedback we receive will assist in the development of future videos and future content for the LD@school website. Please share your thoughts and comments by completing our short survey through this link:

➤ [https://www.surveymonkey.com/r/Mindfulness\\_Martial\\_Arts](https://www.surveymonkey.com/r/Mindfulness_Martial_Arts).

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### Here is an opportunity to help out other educators!

Do you have any information on collaborative inquiry to support students with LDs that you would like to share with LD@school? Or do you know of a specific strategy, practice or approach that has worked well in supporting the needs of students with math learning disabilities at school?

➤ [Click here to send your ideas to info@LDatSchool.ca](mailto:info@LDatSchool.ca).

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