Evaluating the MindUP Middle School Program: *Implementation and Efficacy During the COVID-19 Pandemic*

mindup

A Report on the 2021-2022 Research Study

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HUMAN
EARLY LEARNING
PARTNERSHIP

UBC

PROJECT TITLE:

Evaluating the MindUP Middle School Program: Implementation and Efficacy During the COVID-19 Pandemic

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Research Purpose, Context & Design

Study Rationale

RATIONALE: SEEKING TO BOLSTER WELL-BEING IN STUDENTS & TEACHERS

The MindUP Middle School program lessons focus on reducing stress and promoting kindness, resiliency, and well-being in students during the middle school years. This new program, tailored specifically for the middle school years, has yet to be evaluated.

Now is the time like no other to address the growing mental health concerns in our young people:

- Over the past decades across North America, we have witnessed a rising mental health crisis in youth characterized by declining levels of well-being, both trends that have worsened due to the Covid-19 pandemic (Jones et al., 2022; Gaderman et al., 2022; Luthar et al., 2021).
- In a recent systematic review, researchers explored the impact of pandemics on children's and adolescents' mental health and the effectiveness of different interventions designed to bolster their mental health during the current and past pandemics. The review found that pandemics "cause stress, worry, helplessness, and social and risky problems among children and adolescents," as well as are "precursors to mental health decline" (Meherali et al., 2021, p. 12).
- A growing number of studies have demonstrated the impacts of the pandemic on child and adolescent mental health and well-being (Gadermann et al., 2021). Specifically, the mental well-being of youth, both with and without preexisting mental health concerns, deteriorated during the pandemic (Cost et al., 2022). These declines have largely been associated with increased stress from social isolation (Cost et al., 2022).

In addition to increasing concerns about students' well-being, the well-being of our educators is in jeopardy:

- A recent Gallop poll found that 44% of K-12 educators in the United States reported very high burnout in their jobs - in fact, they were the most burned-out workers in any industry nationally (Marken & Agrawar, 2022). The pandemic exacerbated this burnout and stress (Diliberti et al., 2021).
- Similarly, a recent study with 2,305 educators from British Columbia in the spring of 2021 revealed that almost two years into the pandemic, educators reported significantly higher rates of moderate or severe anxiety symptoms compared to a representative sample of Canadian adults during the same period, and poorer mental health compared to the pre-pandemic period (Hutchison et al., 2022).

Study Purpose

The primary purpose of the present study was to evaluate the implementation (feasibility, dosage, fidelity, acceptability) and efficacy of the MindUP Middle School program for promoting students' positive mental health and well-being, social and emotional competencies, and success in school.

A secondary aim of the study was to examine the program's efficacy in helping to cultivate a caring and positive classroom climate and to evaluate the program's effect on teachers who implemented it.

Study Design

The present study focused on two critical aspects of program evaluation: 1) Evaluating several dimensions of implementation of a mindfulness-based SEL program (MindUP Middle School program) during the COVID-19 pandemic and 2) Investigating the efficacy of this program through the evaluation of student and teacher outcomes.

10 STEPS FOR EVALUATION SUCCESS

10. TAKE TO SCALE	
9. ADAPT & TRANSPORT	EIF Level 4
8. REFINE & MONITOR	
7. TEST FOR EFFECTIVENESS	
6. TEST FOR EFFICACY	EIF Level 3
5. PILOT FOR OUTCOMES	EIF Level 2
4. CONDUCT A FEASIBILITY STUDY (Implementation)	
3. CREATE A BLUEPRINT	
2. DEVELOP YOUR LOGIC MODEL	EIF NL2
1. CONFIRM YOUR THEORY OF CHANGE	

Source: EIF
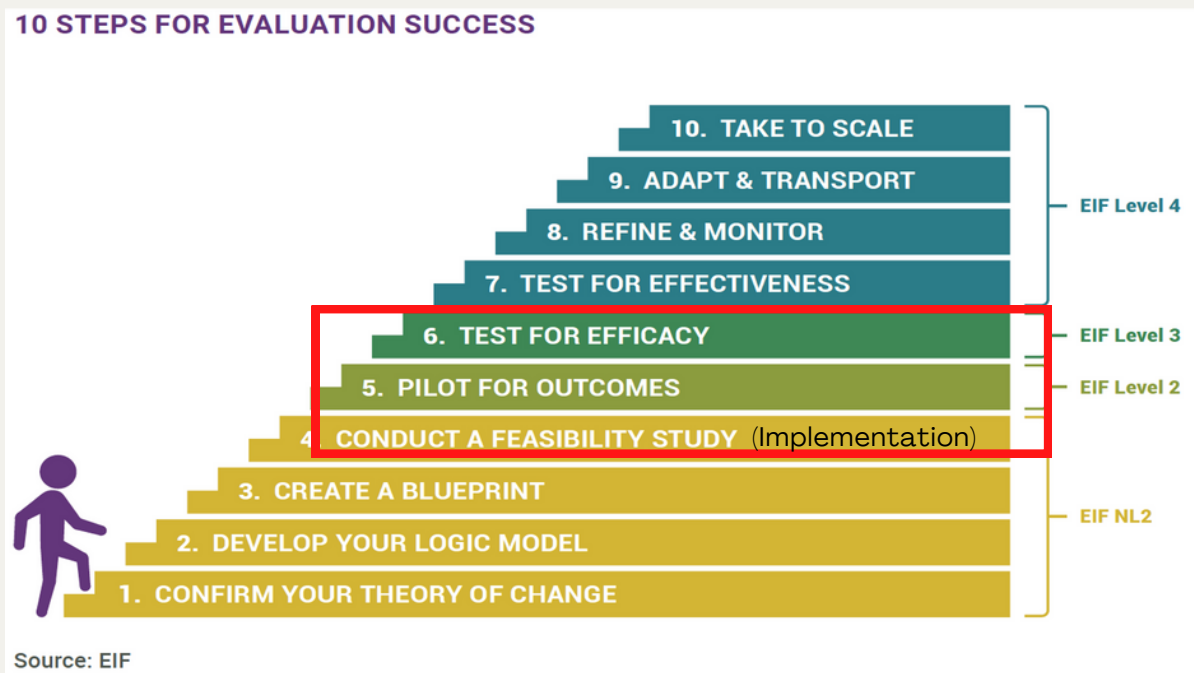
Implementation

"**Implementation** can be defined as the ways a program is put into practice and delivered to participants… Implementation thus refers to what a program looks like 'on the ground' when it is being conducted, as opposed to what a program looks like in theory or on the drawing board." (Durlak, 2015, p. 1124).

- Research has shown that evidence-based programs alone do not produce positive outcomes. It is **well-implemented,** evidence-based programs, that lead to positive results. Therefore, implementation is an essential component of evaluating a new program.

Efficacy

Efficacy: *the ability to produce a desired or intended result.*

- The present study evaluated the efficacy of the MindUP Middle School program to positively impact students' well-being, positive social behaviours, and school success as well as benefits for teachers.

Research Context:
COVID-19 Pandemic & BC School District

COVID-19 Pandemic

- This study took place two years into the COVID-19 pandemic, in the midst of the Omicron wave in British Columbia (BC). At this point (January - June 2022) during the pandemic, students in grades 6-7 had experienced two years of mandated restrictions, including lockdowns and isolation from peers during a vulnerable developmental period of early adolescence.
- The MindUP implementation was shortened from 15 weeks to 11 weeks, in part due to changing protocols and research restrictions in schools as a result of the COVID-19 pandemic.

BC School District

- Participating schools were from a large, urban school district in British Columbia, Canada. This school district is one of a small number of districts in the province that have middle schools. The middle schools, in this district, serve students in grades 6 - 8.

- Based on the 2020 Census, the median family income for the district was $92,000, slightly above the Canadian median income of $84,000. According to results of a 2021-2022 population-level self-report student survey in British Columbia (the Middle Years Development Instrument, MDI), 35% of Grade 5 students and 49% of Grade 8 students were vulnerable on indices of well-being (for example, optimism, self-esteem, happiness). 93.5% of the population reported English as their first language, 0.9% indicated French, and 4% indicated a language other than English or French.

SEL & Mental Health focus

- The BC Ministry of Education has a long history of integrating the promotion of students' social and emotional development into its education system. For example, in 2016, the BC Ministry of Education legislated a revised curriculum for all elementary and secondary school students in the province, which included an explicit focus on promoting students' personal and social competencies (https://curriculum.gov.bc.ca).

Why a Randomized Controlled Trial (RCT)?
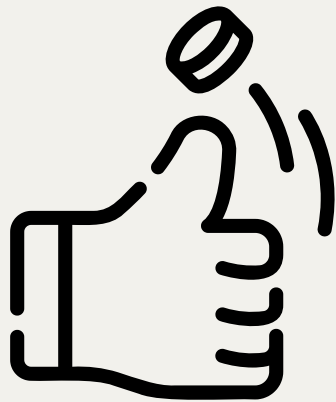
An RCT is often considered to be the "gold standard" in evaluation.

An RCT is when a large population is divided and randomly assigned (e.g., through a coin toss, Random Numbers generator) to a treatment vs. a no-treatment or comparison group to control for selection bias and extraneous variables that may cause post-intervention differences.

RCTs are considered the most rigorous way of determining whether a cause-effect relationship exists between a program and an outcome. That is, only through random assignment to the program and comparison groups can we truly determine whether or not the program caused changes in student outcomes.

Why Implementation?

A Focus on MindUP Implementation:

From implementation science, we have learned that it is not evidence-based programs alone that are effective, but rather it is well-implemented evidence-based programs that are effective (Durlak, 2015).

- **Understanding the quality of implementation matters for understanding outcomes:** Research on Social-Emotional Learning (SEL) programs in school settings has shown that a focus on implementation is essential, as the quality of program implementation influences student outcomes. SEL programs implemented with high quality produce effects at least two to three times higher than those implemented with low quality (Durlak et al., 2011). Understanding what constituted high-quality implementation improved "when multiple implementation elements were assessed" (Baelen et al., 2022).

- **Providing more information to understand for whom and under which conditions the program works:** Reviews of school-based mindfulness programs with youth found a lack of attention to and under-reporting of program implementation, making it difficult to discern for whom and under what conditions these programs work (Baelen et al., 2022). Additionally, to understand the impact of implementation on outcomes, multiple implementation elements must be assessed, as comprehensive and complete assessment can shed light on the implementation elements that matter most for different programs/interventions (Durlak & DuPre, 2008).

- **Reporting and focusing on implementation can help guide future research, practice, and policy**: Sufficient reporting and analysis of implementation data can provide the necessary information to advise on and guide future research, practice, and policy, especially related to the program.

In light of the importance of measuring and considering implementation, we sought to explore implementation much more in-depth than other studies of school-based mindfulness programs and SEL programs historically have done. In so doing, we can draw more informed conclusions and make better recommendations for future research and program implementation.

Why Focus on Middle School?

There is empirical support for the phenomenon of a **"stress pileup"** that occurs as individuals make the transition from childhood to early adolescence (Eccles et al., 1993).

There is a number of **cognitive, social, academic**, and **physical changes** occuring in the transition to early adolescence.
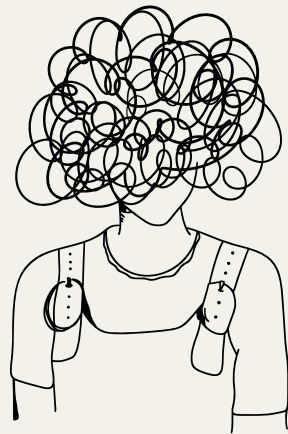
It is a vulnerablity-inducing time but also a **window of opportunity,** in part due to immense **brain plasticity** at this stage.
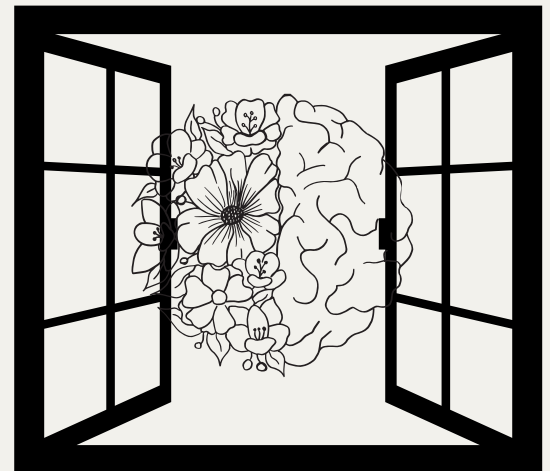
Implementation Research Questions

- *What are teachers' perspectives on the new MindUP Middle School program?*

- *What are students' perspectives on the MindUP Middle School program?*

- *How feasible is implementing the MindUP Middle School Program from the perspective of grades 6 and 7 teachers, especially during demanding times such as increased rates of COVID-19 illness and pandemic restrictions?*

- *What impacts did the MindUP Middle School Program have on students at the classroom level and at a personal level, with respect to their own relationships and well-being?*

See Appendix for a full summary of survey questions

"Monitoring and understanding implementation is an essential element for all programme evaluations and is necessary for determining a programme's true value." (Durlak, 2016, p336)

How did we assess implementation?

Dosage

The amount or how much of a program that is delivered (can also be referred to as exposure). This can include the number of sessions offered, intensity of sessions, and length of time of each session.

Fidelity

The extent to which a program's core program components (CPCs), objectives, and principles are implemented as intended. Emphasis is on integrity to CPCs and not solely to a manualized, rigid set of practices, curriculum, or protocol.

Adaptations

Additions or modifications made to the program either pre-emptively to adapt/align with context or participant needs (planned adaptations) or during implementation (unplanned adaptations).

Responsiveness & Acceptability

The extent to which participants are engaged with the activities and content of the program and the extent to which a program is judged as suitable, satisfying, or attractive to program deliverers, recipients, the overall school community, other teachers and school staff, and parents.

(**Baelen et al., 2022**) 15

Research Method: Implementation

Several dimensions of implementation were assessed in this study. For the purpose of this report, we have focused on and included results from the following data.

- **Weekly implementation diaries**: Designed to collect data from teachers on what they actually implemented in their classrooms throughout the study - completed by both teachers offering the MindUP program to students and those in the comparison group.
  - *Implementation diaries for MindUP teachers with the following questions for each lesson (up to 15 lessons)*:
    - Dosage:
      - How much of the lesson was completed by the teacher?
    - Fidelity:
      - How closely did they follow the lesson plan?
    - Competence:
      - How prepared did the teacher feel to implement the lesson?
      - How well did the teacher feel that they delivered the lesson?
    - Adaptations:
      - The extent to which they adapted or made adjustments to the lesson
    - Acceptability:
      - Their perceptions of students' engagement with the lesson
  - *Implementation diaries for the BAU group teachers asked the following for each week (11 weeks total)*:
    - The name(s) of the program(s) or activity implemented
    - Who implemented the program and/or where it was implemented (i.e., classroom, led by another instructor, school-wide)
    - Their perceptions of students' engagement with the lesson (acceptability)
    - The frequency with which they implemented the program and/or activity
    - The components of the program and/or activity
- **Consumer Satisfaction Surveys:** Collected to gather feedback about the MindUP program and its implementation from students and teachers at the end of the study.
  - *Student Consumer Satisfaction Survey assessed the following*:
    - Acceptability: How much students liked the program
    - How much they learned / what they learned from the program
    - Whether they would recommend the program to others
  - *Teacher Consumer Satisfaction Survey assessed the following*:
    - How implementing the MindUP program benefitted them personally and professionally
    - Whether they would recommend the program to others

Research Method:
Efficacy - Student Outcomes

Several dimensions of student social and emotional competencies, well-being, and school success were assessed in this study. For the purpose of this report, we have focused on and included results from the following **peer nomination** data.

What are Peer Nominations?

- Following the procedures outlined by Parkhurst and Asher (1992), peer nominations were used to obtain independent assessments of students' social behaviours, whereby children nominated their classmates who fit the particular behavioral characteristics listed below.

- Peer nomination methods are considered the single most effective way to determine how children are perceived by their peers (Parkhurst & Asher, 1992; Pepler & Craig, 1995).

- Peers have certain specific advantages as informants – they are participant observers that can provide an important glimpse into the behaviours of their classmates that do not occur when adults are present, and hence peer reports can be more accurate than adult reports as they are more likely to garner reports of both positive and antisocial behaviours (Pepler & Craig, 1995; Younger et al., 2000).

- Research conducted over the last three decades has consistently shown that children who demonstrate more positive and prosocial behaviours in the eyes of their peers (as assessed via peer nominations) are not only better liked by them, such children also do better in school and have better long-term adjustment (Wentzel et al., 1993; Wentzel et al., 2007).

Research Question	Measures
What is the impact of the MindUP Middle School on students' positive social behaviours?	**Peer Nominations** Check all names of students in your class who: • *help others when they have a problem* • *is someone you can trust* • *shows compassion*

Describing the Context
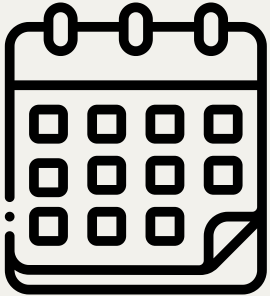
Study occurred from **January-June 2022**

MindUP Training **March 10 & April 6, 2022**

One large, urban public school district in British Columbia, Canada

Median family income: $92,000 CAD (slightly above BC average)
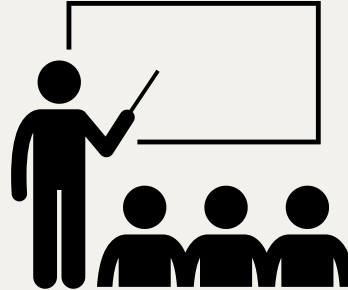
14 teachers

15 -50 years teaching experience
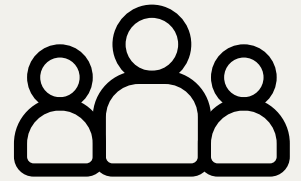
327 Grades 6 & 7 students

91% study participation rate

79% reported English as a first language

- **21%** Asian
- **0.4%** Black
- **2%** LatinX
- **0.7%** Indigenous
- **48%** White
- **14%** More than one race (e.g., White and LatinX, Asian & Black, Asian & LatinX)
- **6.5%** Other

Describing the Context

Prior Experiences with Mindfulness

75% of students reported experience with mindfulness practices/programs* prior to the start of the study

5 of the 14 teachers (including 2 comparison) had received MindUP training (different curriculum) prior to the present study

*Mindfulness examples provided to students: meditation, yoga, tai chi, prayer, martial arts, brain breaks, MindUP

MindUP Middle School Program & Training

MindUP Middle School Program

The MindUP Middle School program lessons focus on reducing stress and promoting kindness, resiliency, and well-being in students during the middle school years (grades 6 - 8).

The lessons provide opportunities for students to enhance their:
- positive social behaviours (for example, sharing, helping, and cooperating), and
- positive mental health and well-being

The 15 MindUP Middle School program lessons provide opportunities for students to enhance these social and emotional competencies by engaging in activities that promote caring for self and others, including mindful attention awareness and emotion understanding, empathy, and perspective-taking. Research has demonstrated that such skills and knowledge increase students' positive social behaviours and academic success and decrease aggressive and antisocial behaviours and mental health problems.

The MindUP Middle School manual was written to be calibrated to the developmental stage of students in middle school and includes detailed lesson plans that can be broken down into 30-40 minute sessions. In addition, the manual includes teaching scripts and worksheets to aid in implementation.

Several lessons incorporate mindful attention awareness practices and activities that provide children with opportunities to:
- learn about their brain,
- understand how their thoughts and feelings affect their actions, and
- learn strategies to become caring and altruistic people.

The core practice or "brain break"(done every day for 3 mins, three times daily) consists of focusing on one's breathing and attentive listening to a single resonant sound. Children learn how training their focused awareness might affect their brain and nervous system, giving them a self-regulatory strategy to calm down when they are stressed or overwhelmed by emotions.

Each component of the program builds on previous skills learned, moving children from focusing on internal experiences (e.g., mindful smelling, mindful tasting) to cognitive experiences (e.g., taking others' perspectives), to practicing gratitude, and ending with children engaging in acts of kindness directed toward others in their home, classroom, and community.

MindUP Middle School Program
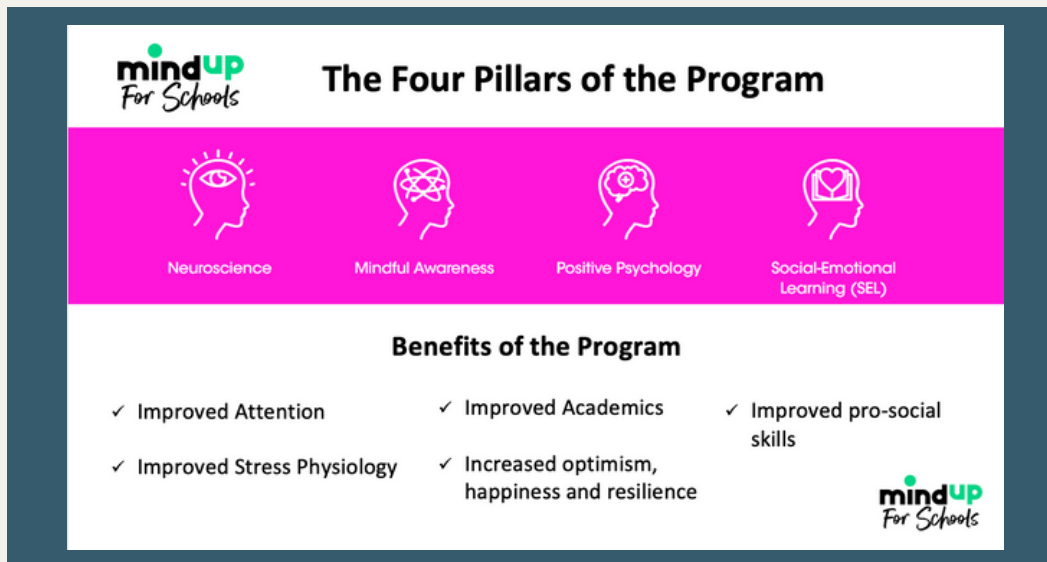
MindUP Middle School is a 15-week program that includes 15 lessons designed to enhance self-awareness, focused attention, problem-solving abilities, stress reduction, conflict resolution, and prosocial behaviours in students (such as sharing, helping, and cooperating).

Unit 1: Building Awareness

Lesson 1: Building the MindUP Learning Community
Lesson 2: Understanding the Brain
Lesson 3: The Brain Break

Unit 2: Mindful of our Senses and Understanding the Adolescent Brain

Lesson 4: Mindful Awareness in Practice - Using our Senses
Lesson 5: Mindful Awareness in the Body
Lesson 6: The Adolescent Brain

Unit 3: Mindful of Myself and Others

Lesson 7: Getting Granular about Feelings
Lesson 8: Empathy: Relationship Builder
Lesson 9: Fostering an Optimistic View

Unit 4: Mindful of Ourselves in the World

Lesson 10: Practicing Gratitude
Lesson 11: Acts of Kindness and Compassion
Lesson 12: Taking Care of Me
Lesson 13: We Are All Connected
Lesson 14: Mindful Consumption
Lesson 15: Taking Action in Our Community

MindUP Middle School Program
Teacher Training

When & Where it happened

- March 10th & April 6th, 2022: Two (after-school) 1.5 hour virtual training sessions

Who attended

- All 7 teachers randomized to implement the MindUP Middle School program

Who led the training

- The training was conducted by Dr. Molly Stewart-Lawlor, the primary author of MindUP.

What teachers learned

- The MindUP training consisted of two 90-minute virtual sessions where participants were provided with the theoretical and empirical underpinnings of the program and an overview of the lesson plans. Teachers were given time to ask questions and discuss program implementation.

Study Timeline

Information session with district and principals

Dec 16, 2021

Jan 13, 2022

Ethics approval from UBC

Initial meetings with schools & teachers

Jan 17-19 2022

Feb 1 - 11, 2022

Permission slip visits with participating classrooms

Pre-intervention Data Collection

Feb 15- Mar 4, 2022

Mar 10, 2022

MindUP Training Session 1

SPRING BREAK: Mar 14–25, 2022

Study Timeline

MindUP Training Session 2 — April 6, 2022

April 11, 2022 — Teachers begin implementing MindUP Middle school

Post-intervention Data Collction — May 31 - June 17, 2022

June 29, 2022 — Last day of classes

Data entry, preparation, analysis, reporting — July 2022 - Feb 2023
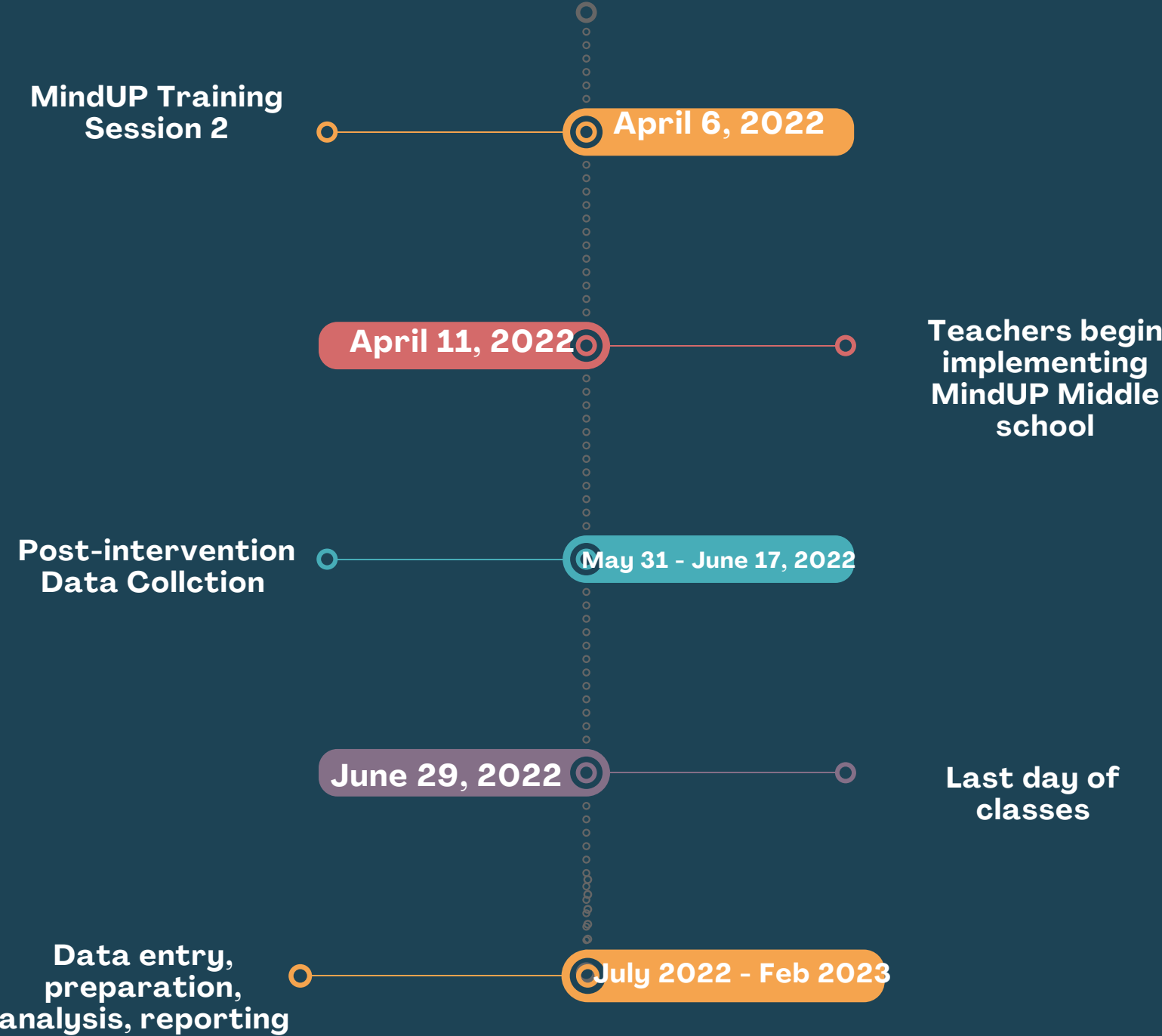
Study Design: Randomized controlled trial

14 classrooms (4 schools)

Teacher Consent & Student Assent

Baseline Data Collection (Online surveys - students & teachers)

Randomization into Study Condition

7 MindUP Teachers/Classrooms

7 Comparison Teachers/Classrooms

MindUP Teachers Attend MindUP Training (2 sessions)

Business as Usual for 11 weeks

Implement MindUP Middle School for 11 weeks

Post-test Data Collection (Online surveys, feedback surveys, teacher interviews)

Study Design: Pandemic Adaptations

To conduct the present study in schools, during a time of increased COVID-19 health protocols and visitor restrictions, some adaptations were required by the school district. Changes in the study protocol necessitated additional approvals from UBC Ethics Board. Adaptations included virtual research visits and MindUP training in two 90-minute virtual and after-school sessions (due to a shortage of TTOCS [substitute teachers]). With the ongoing adjustments, teachers only had 11 weeks to implement the 15-lesson program.

MindUP Training Adaptations

Standard MindUP Training

One full day of in-person training

During school hours, time covered with TTOC

Pandemic Adaptation for Current Study

Two 1.5 hour Zoom sessions

After-school (no TTOCs)

Data Collections Adaptations

Standard Data Collections Procedures

In-person permission slip and data collection visits with students

Pandemic Adaptation for Current Study

Student permission slip visits and surveys completed online, facilitated virtually (Zoom) by researchers

Timeline Adaptation:
Teachers had only 11 weeks to implement the 15 week program

Findings

Part 1: *Implementation*

Key Finding #1:

Teachers reported that it was feasible to implement the MindUP Middle School Program during the pandemic

Dosage: Number of Lessons

Teachers completed between 9 and 13 lessons

None of the teachers were able to complete all 15 lessons

Number of Teachers

| 9 lessons | 10 lessons | 11 lessons | 12 lessons | 13 lessons |
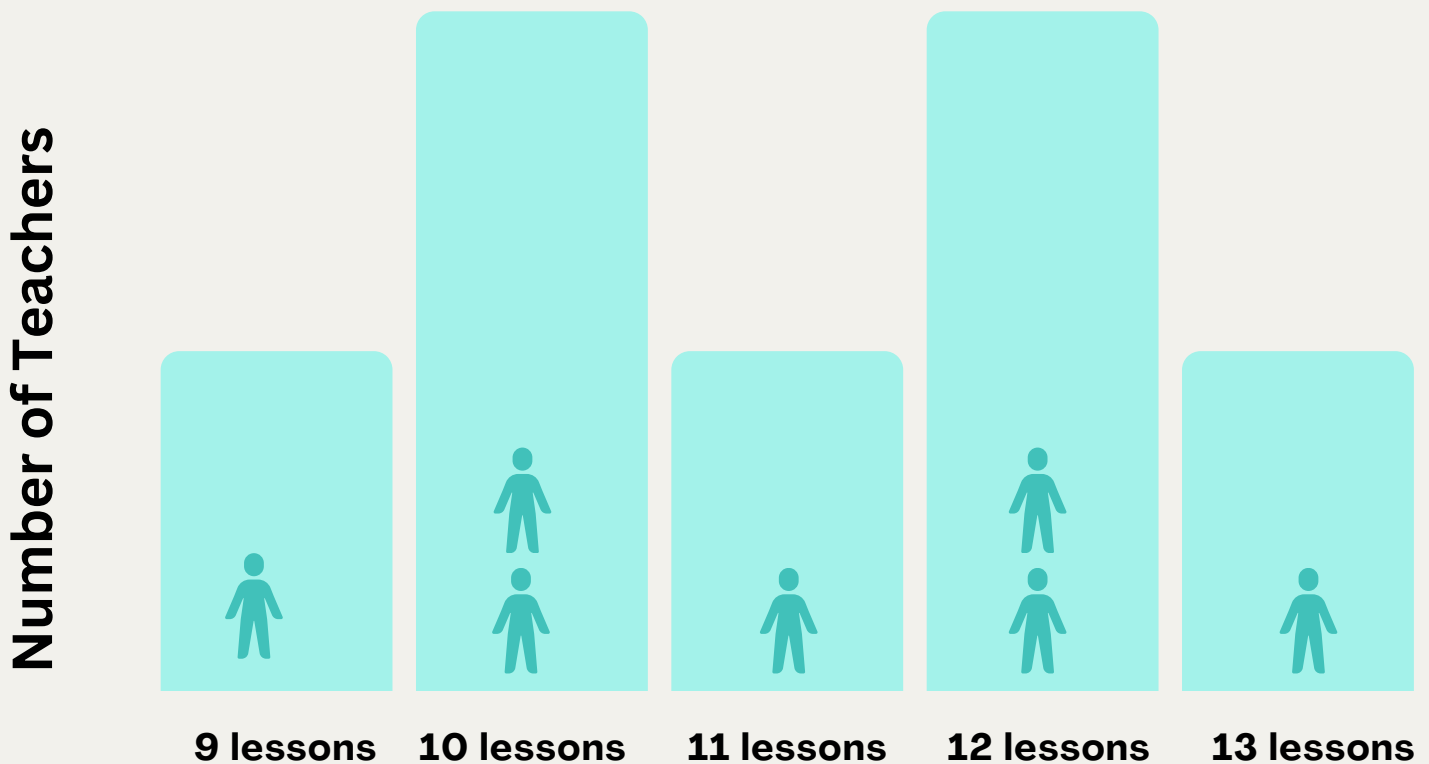
Number of lessons completed out of 15

NOTE: Teachers had 11 weeks to implement the 15-week program

Dosage: Completion of Lessons

Did you complete the lesson? How much of the lesson did you complete?

Most lessons were implemented in their entirety by the majority of teachers. For example, for lesson one, two teachers reported implementing less than 40% of the lesson; two teachers reported implementing 40-60% of the lesson; and three teachers reported implementing 60% or more of the lesson. No teachers completed lessons 14 or 15.

Legend: ■ Low (<40%) ■ Moderate (40-60%) ■ High (60+%)

- L1:MindUP Learning Community
- L2: Understanding the Brain
- L3: The Brain Break
- L4: Mindful Awareness - Using senses
- L5: Mindful Awareness in the Body
- L6: The Adolescent Brain
- L7: Getting Granular about Feelings
- L8: Empathy
- L9: Fostering an Optimistic View
- L10: Practicing Gratitude
- L11: Acts of Kindness/Compassion
- L12: Taking Care of Me
- L13: We are All Connected

Number of teachers

Fidelity: Following the Lessons

For each lesson, teachers were asked to the respond to the question:

How closely did you follow the lesson as described in the lesson plan?

- **Teachers followed at least 40% of each lesson**

- **Most lessons were followed with >60% fidelity by most teachers.**

The exception was Lesson 1 which some teachers skipped or implemented small portions of because it was a review of content already covered earlier in the year.

*Note: Studies have found positive effects when implementation is at least at 60%, with few studies reaching beyond 80% implementation of programs (Durlak & Dupre, 2008).

Fidelity: Following the Lessons

**👤** = High (**60+%**) fidelity   **👤** = Low-Moderate (**< 60%**) fidelity

Lesson	Fidelity of Lesson Implementation
Lesson 1: Building the MindUP Learning Community	👤👤👤👤👤👤
Lesson 2: Understanding the Brain	👤👤👤👤👤👤 *1 teacher did not respond
Lesson 3: The Brain Break	👤👤👤👤👤👤
Lesson 4: Mindful Awareness in Practice: Using Our Senses	👤👤👤👤👤👤
Lesson 5: Mindful Awareness in the Body	👤👤👤👤👤👤 *1 teacher skipped this lesson
Lesson 6: The Adolescent Brain	👤👤👤👤👤👤
Lesson 7: Getting Granular about Feelings	👤👤👤👤👤👤 *1 teacher did not respond
Lesson 8: Empathy: Relationship Builder	👤👤👤👤👤👤 *1 teacher did not respond
Lesson 9: Fostering an Optimistic View	👤👤👤👤👤👤 *1 teacher did not respond
Lesson 10: Practicing Gratitude	👤👤👤👤 *1 teacher did not complete this lesson *2 teachers did not respond
Lesson 11: Acts of Kindness and Compassion	👤👤👤 *3 teachers did not complete this lesson *1 teacher did not respond
Lesson 12: Taking Care of Me	👤👤👤 *4 teachers did not complete this lesson
Lesson 13: We Are All Connected	👤 *6 teachers did not complete this lesson
Lesson 14: Mindful Consumption Lesson 15: Taking Action in Our Community	*Not Implemented by any teachers*

Fidelity: Preparedness & Quality of Lesson Delivery

For each lesson, teachers were asked to answer the question on a scale of 1 (**not at all prepared**) to 5 (*very prepared*):

How prepared did you feel to deliver this lesson?
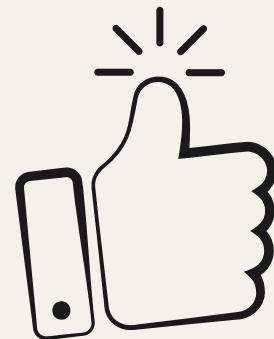
*On average, teachers felt **Somewhat** to **Very Prepared** for each lesson.**
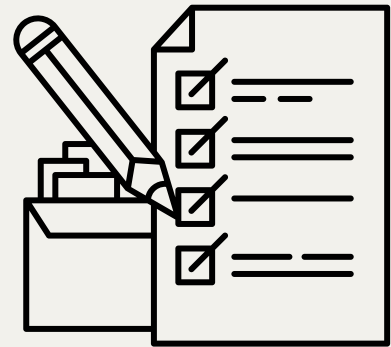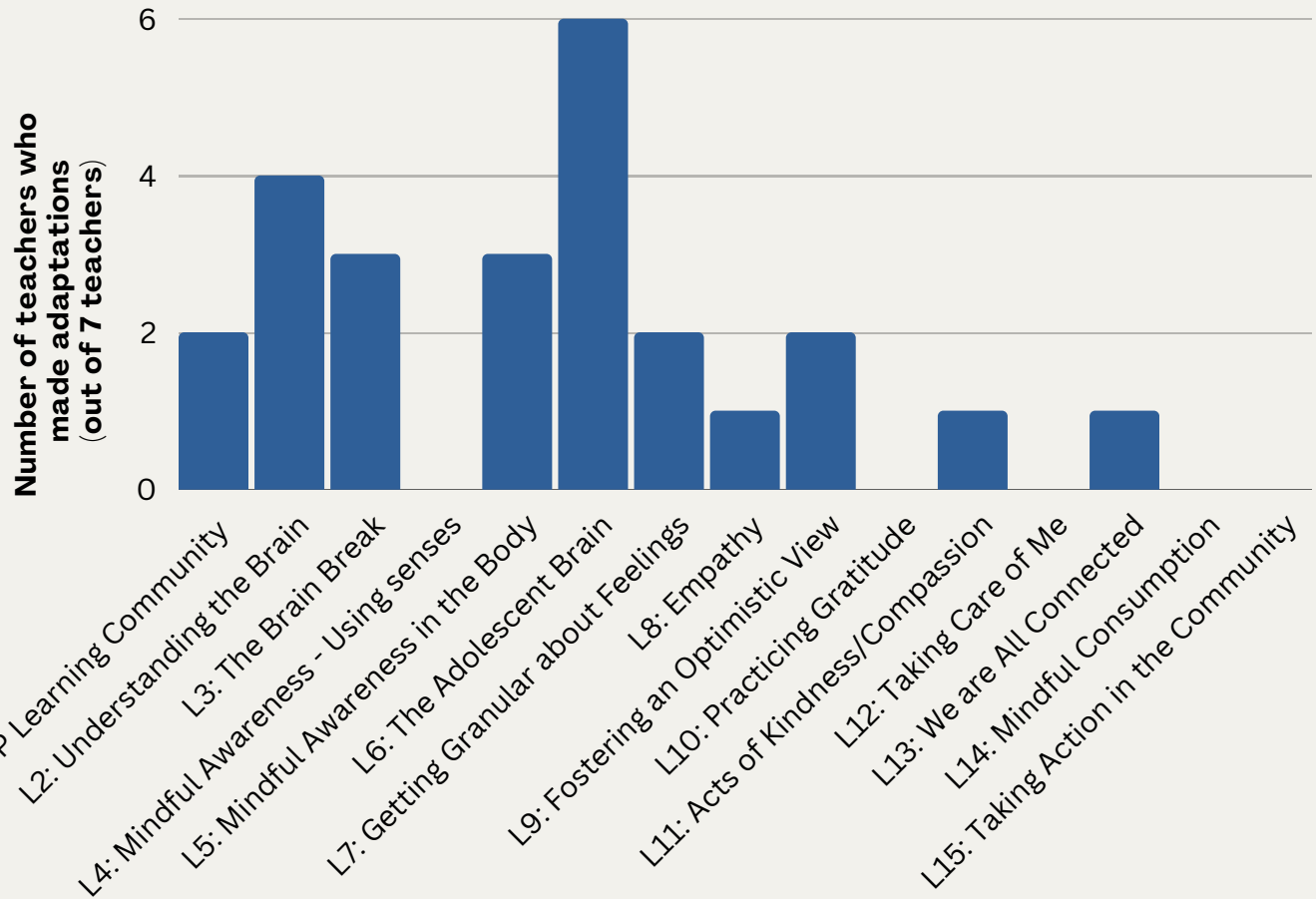
For each lesson, teachers were asked to answer the question on a scale of 1 (Poorly**) to 5 (**Very Well**):**

How well do you think you delivered each lesson?

*On average, teachers felt they delivered the lessons **About Average** to **Very Well** **

*See Appendix for summary of all lessons

Adaptations: Many teachers made adjustments to the lessons for diverse learners

Number of teachers who made adaptations (out of 7 teachers)

Lesson	Number
L1:MindUP Learning Community	2
L2: Understanding the Brain	4
L3: The Brain Break	3
L4: Mindful Awareness - Using senses	0
L5: Mindful Awareness in the Body	3
L6: The Adolescent Brain	6
L7: Getting Granular about Feelings	2
L8: Empathy	1
L9: Fostering an Optimistic View	2
L10: Practicing Gratitude	0
L11: Acts of Kindness/Compassion	1
L12: Taking Care of Me	0
L13: We are All Connected	1
L14: Mindful Consumption	0
L15: Taking Action in the Community	0

Quotes from Teachers

Instead of the "make a poster and teach it to the rest of the group," I still had them in pairs to learn about different parts of the brain then we shared and took notes as a class. I did this as an adaptation for my class – they have difficulty staying focused and it was the afternoon. They came back from their other class really riled up and I knew they would lose their focus. Doing the note taking together was really helpful to keep them on track and focused on the lesson.	"Some of the lessons were really heavy on the teacher talk so if I was following the script and like to a T which, to be honest, I didn't do a lot… and there were too much teacher talk and not enough either reflecting or kids working with kids or just thinking about their own… it was just too much sitting and listening."	"So just that that following the script and then really having to make sure I knew when some of the lessons were literally "them sit and me read" – it was just was to actually put in a lot of videos and some other things I had to had to sort of supplement with, but… in the grand scheme of challenges, those are not really big issues."

Key Finding #2:

All teachers in the *Comparison Group* were implementing some level of SEL programming during the study

Comparison classrooms were actively implementing SEL activities and programs in their classrooms to varying degrees.

Lower SEL Implementers:
0 - 1 SEL program and/or activities per week on average

Higher SEL Implementers:
2-3 SEL programs and/or activities per week on average

4 Teachers

3 Teachers

Examples of SEL Activities Implemented by Comparison Teachers

| SEL Programs	SEL Activities/Strategies
• RULER • Second Step • Kindness in the Classroom • Zones of Regulation • My Strong Mind	• Habits of the Mind • Mindful breathing practices • Gratitude practices • First Nations art journalling

38

Key Finding #3:

Teachers felt positive about the MindUP Middle School program after implementing it

Acceptability: Teachers
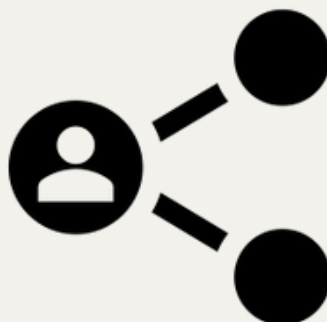
POSITIVE FEELINGS ABOUT MINDUP

100%

Of teachers felt *Positive* to *Very Positive* about the MindUP Middle School program.
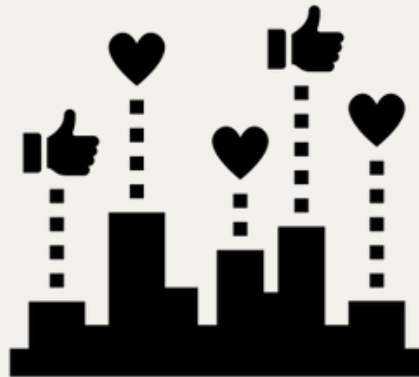
WOULD RECOMMEND

100%

All MindUP teachers said they would recommend the MindUP Middle School program to a colleague.
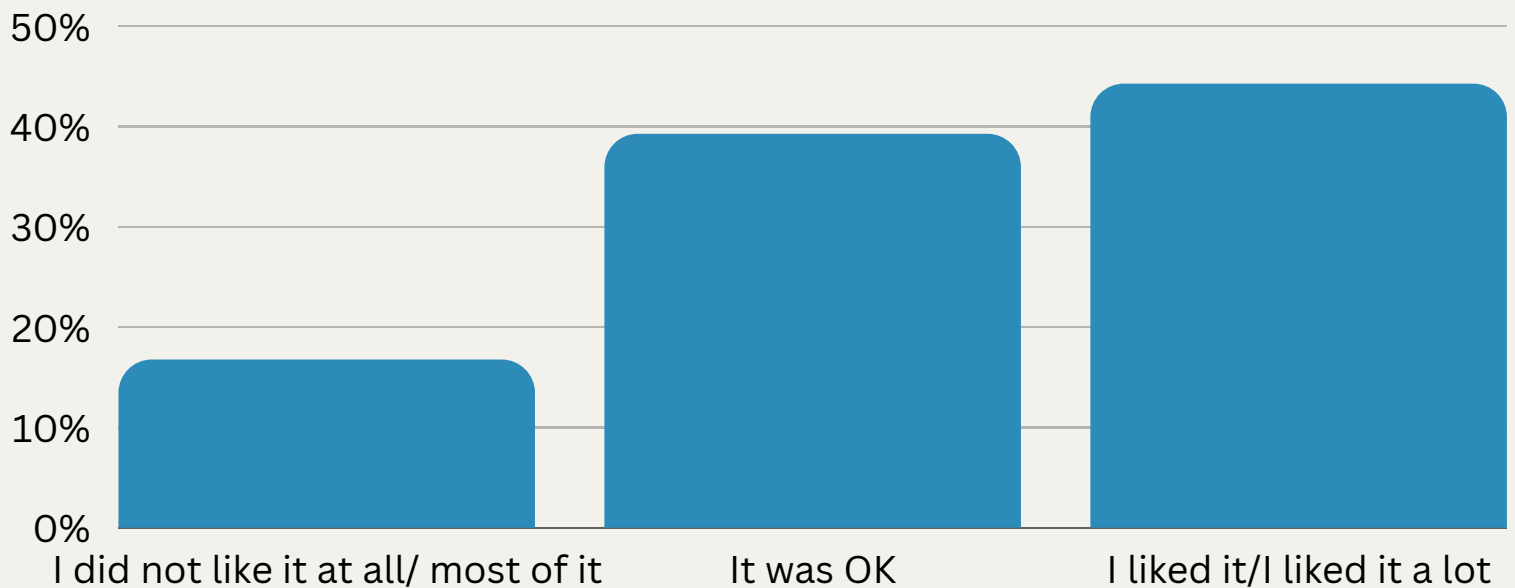
n= 7 teachers
(**in the MindUP group**)

Key Finding #4:

Most students reported enjoying the MindUP Middle School program

Most students reported that they liked the MindUP Middle School program.

Students were asked, "How much did you like the "MindUP Middle School" program?"

Note: *n* = 120. 25 students did not respond to this question

WOULD RECOMMEND

47% Of students said **they would recommend** the MindUP Middle School program to a friend

77 - 85% of MindUP students responded to the MindUP Feedback questions

Students were asked respond to:

*What did you like **best** about the MindUP Middle School program?*

Of the 145 students who participated in MindUP, 41%
provided specific feedback on what they liked best about MindUP

Students were asked respond to:

*What did you like **best** about the MindUP Middle School program?*

Prosocial activities/Gratitude 8%

Program format 9%

Neuroscience 9%

Learning something new 13%

Mindfulness activities 40%

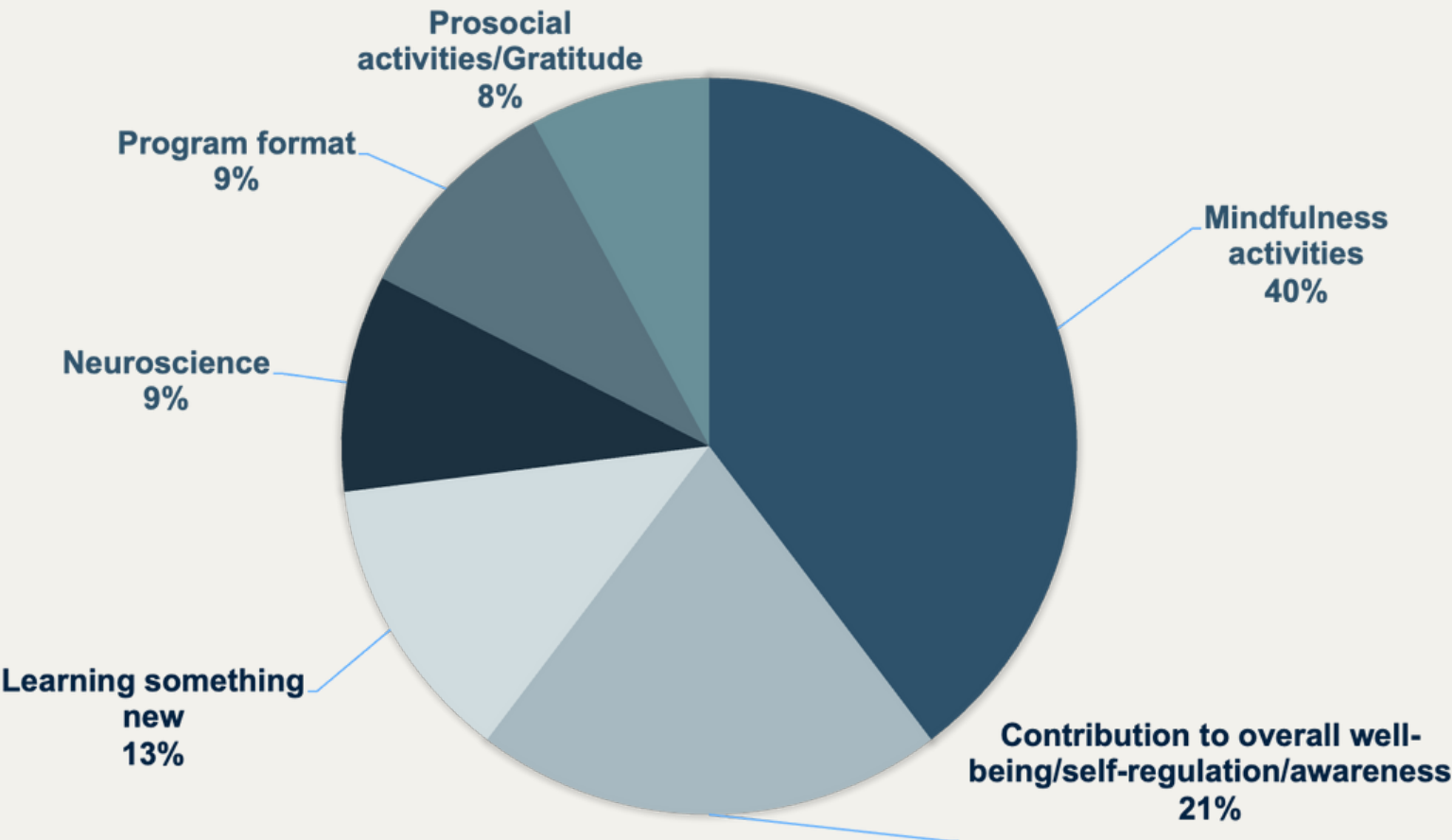Contribution to overall well-being/self-regulation/awareness 21%

Of the 145 students who participated in MindUP, 41% provided specific feedback on what they liked best about MindUP

Student Perceptions: What they liked

**Students were asked to report on the "Things they liked most"
about the MindUP Middle School Program**

Theme	Comment	Grade & Gender
Mindfulness activities	"When we focused how this piece of candy tasted and felt."	Grade 6 girl
	"I liked the chime because it was a time where I could relax."	Grade 6 boy
Contribution to wellbeing	"It was calming."	Grade 7 boy
Learning something new	"I liked learning about the way people can be mindless and not mindful, then they make mistakes and learn."	Grade 6 boy
Games	"The one MindUP activity where everyone could choose to play a game or do math questions."	Grade 7 boy
Neuroscience	"It helped me learn more about my brain and how I can develop it."	Grade 6 girl
Program format	"Hands on."	Grade 6 girl
Prosocial activities	"The concept of empathy, I most enjoyed."	Grade 7 girl
Gratitude	"I didn't realize objects I used every day and how lucky we are and how significant it is."	Grade 7 girl

Of the 145 students who participated in MindUP, 41% provided specific feedback on what they liked best about MindUP

Student Perceptions: What they did not like

Some students indicated that they did not like something about the MindUP program

Of the 145 students in the MindUP group **13 students** provided us with specific feedback about what they did not like about MindUP.

Theme	Comment	Grade & Gender
Brain Breaks (3 students)	"I did not like the chime because it was a distraction for me."	Grade 6 boy
	"Breathing felt boring."	Grade 6 girl
Boring in General (7 students)	"It was boring. I like my life exciting."	Grade 7 girl
Other (3 students)	"Too long"	Grade 6 girl

Student Perceptions: Would Recommend It

WOULD RECOMMEND

47%

Of students said **they would recommend** the MindUP Middle School program to a friend

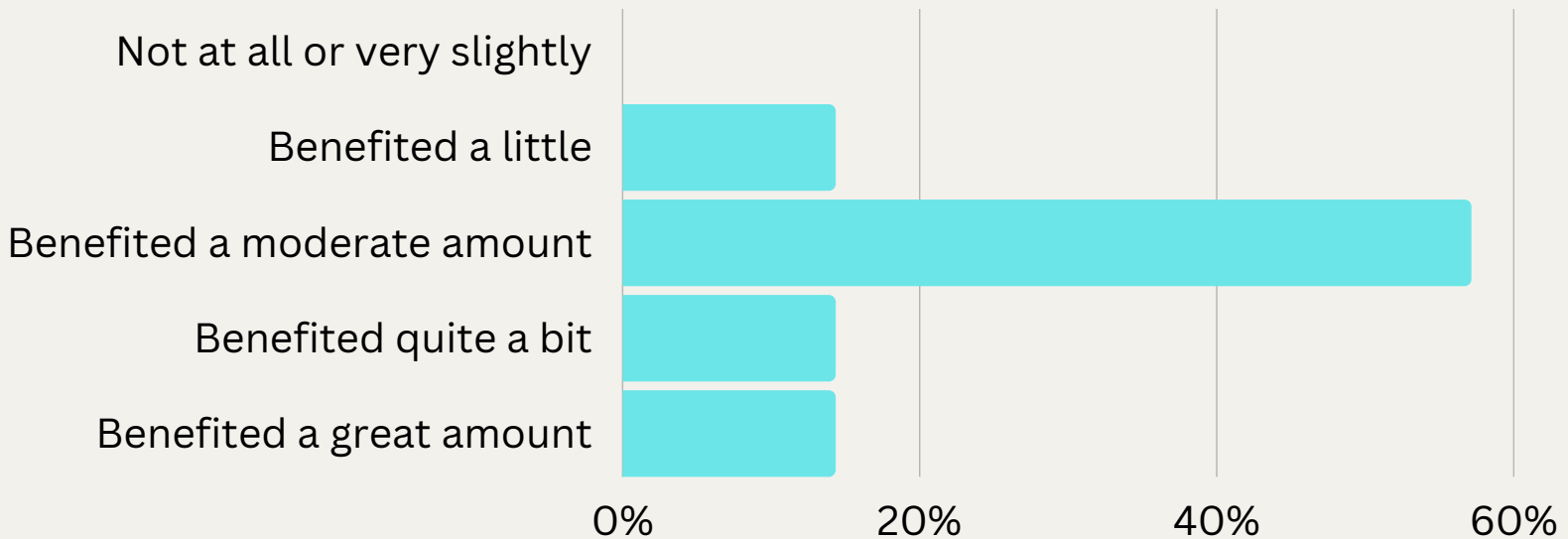|	
"Because it teaches you life skills."	"I would to like a friend who is suffering but not to just anyone"
"It helps you kind of look at life in a different way and be more aware of all the things you have in life"	"Because it will teach kids about [their] emotions"
"Yes because it was very fun and it helped me learn more about my brain, empathy and more."	" I understood myself much more than I used to."
"Because it can help them get out of a hard place"	"I'd recommend it because I know some people with problems with their emotions and I think showing them some of these exercises could help"

Findings

Part 2: *Efficacy*

Preliminary Teacher and Student Outcomes

Key Finding #5:

Teachers reported benefiting both professionally and personally from teaching MindUP

On average, teachers reported moderate benefit <u>professionally</u> from teaching MindUP

Not at all or very slightly

Benefited a little

Benefited a moderate amount

Benefited quite a bit

Benefited a great amount

0%   20%   40%   60%

Teachers were asked, "Overall, how much would you say you've benefitted professionally from teaching the MindUP Middle School program?"

"I am finding myself pausing and noticing my emotions more, especially in times of frustration. I think this makes mea better educator!"

"As a teacher, the curriculum was helpful in delivering a set structure, however, the concepts are worked on all year with our students."

"I liked having a framework for introducing mindfulness, gratitude, etc. to my students that worked to extend some of the things we'd been doing in community circles since September"

On average, teachers reported moderate benefit <u>personally</u> from teaching MindUP
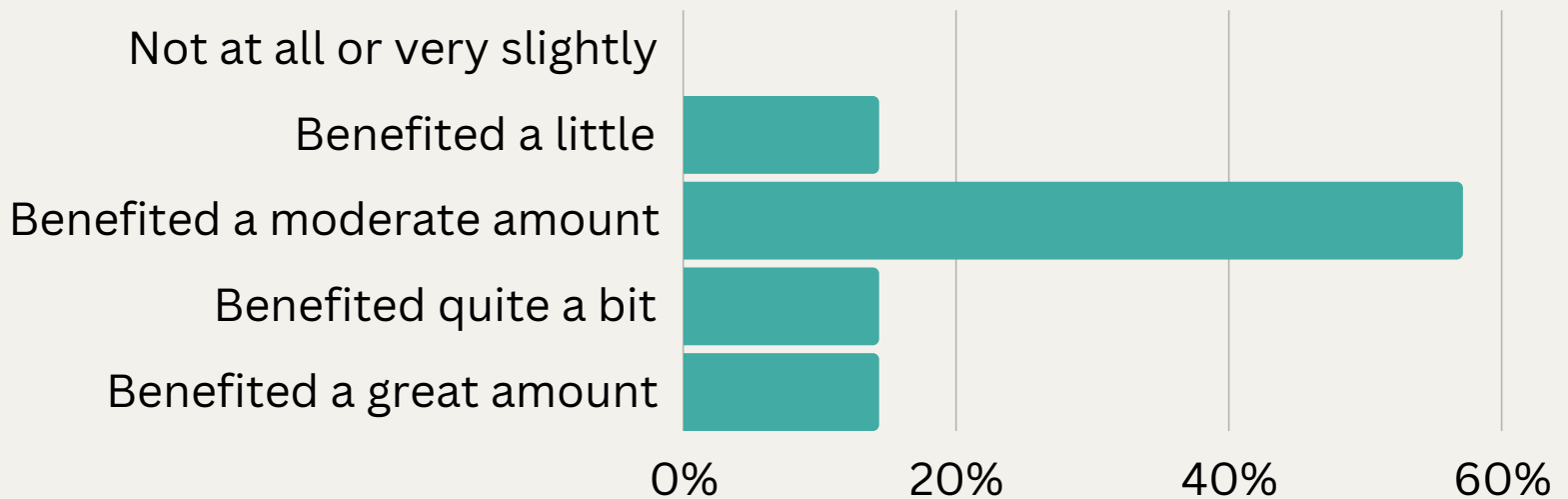
Teachers were asked, "Overall, how much would you say you've benefitted personally from teaching the MindUP Middle School program?"

> "I think it about the lessons more and find myself using the techniques!"

> "It helped me be more mindful at school while we did the breathing exercises."

Teachers' Perceived Benefits

All 7 teachers reported that MindUP Middle School had a **Neutral** to **Moderately Positive** effect on:

Teacher-Student
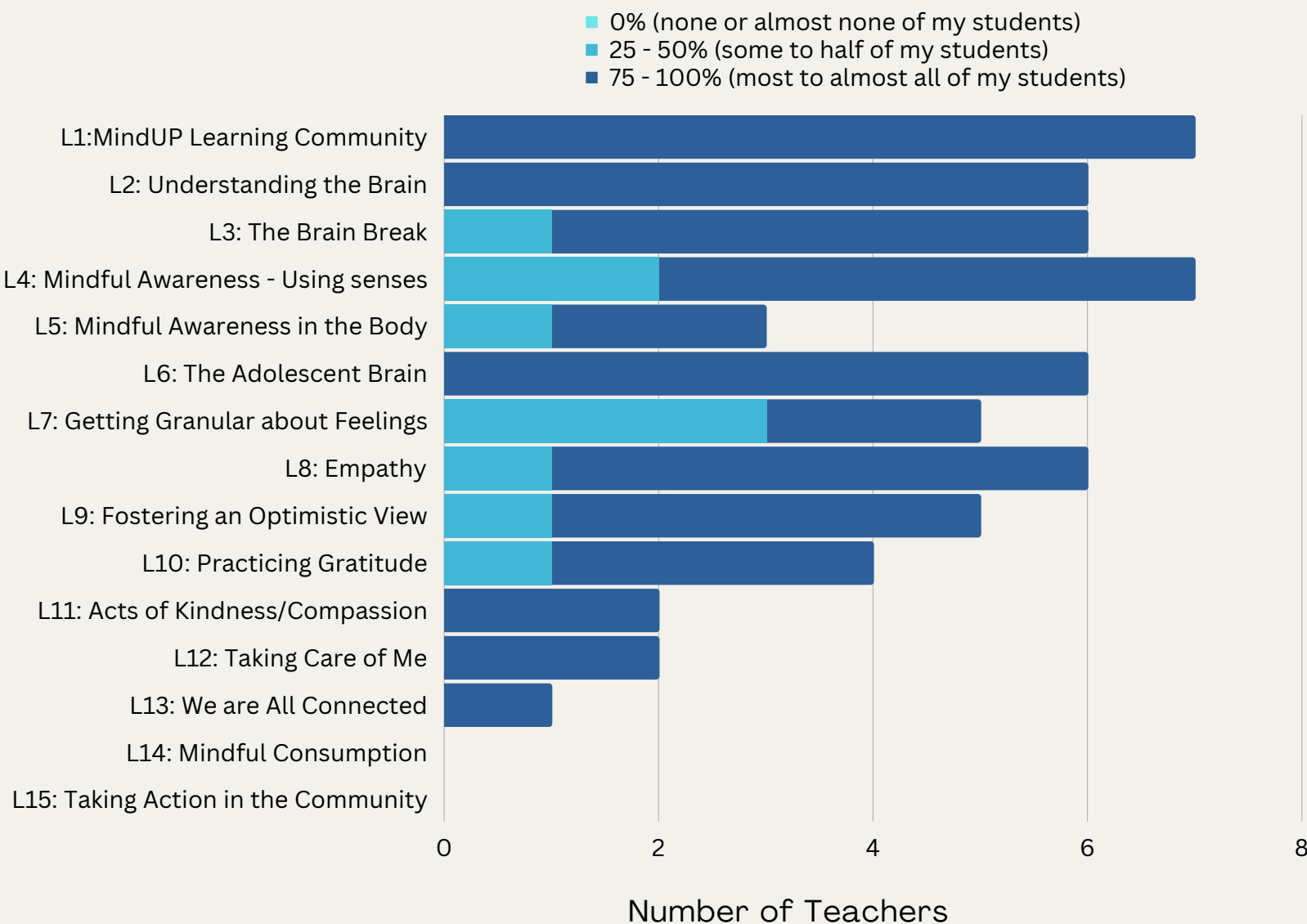Relationships

Relationships with
colleagues

Relationships with family and
friends

Key Finding #7:

The majority of teachers reported that students were engaged in MindUP and MindUP had a positive effect on students.

Student Engagement

Teachers reported that the majority of their students were engaged during most of the lessons

Legend:
- 0% (none or almost none of my students)
- 25 - 50% (some to half of my students)
- 75 - 100% (most to almost all of my students)

Chart categories (vertical axis):
- L1: MindUP Learning Community
- L2: Understanding the Brain
- L3: The Brain Break
- L4: Mindful Awareness - Using senses
- L5: Mindful Awareness in the Body
- L6: The Adolescent Brain
- L7: Getting Granular about Feelings
- L8: Empathy
- L9: Fostering an Optimistic View
- L10: Practicing Gratitude
- L11: Acts of Kindness/Compassion
- L12: Taking Care of Me
- L13: We are All Connected
- L14: Mindful Consumption
- L15: Taking Action in the Community

Horizontal axis: Number of Teachers (0, 2, 4, 6, 8)

Teachers were asked to respond to: *Please estimate the percentage of your students who were engaged during the lesson.*

TEACHER PERCEPTIONS ON THE IMPACT OF MINDUP ON STUDENTS

In your opinion, what effect did the MindUP Middle School program have on the students in your class this year?
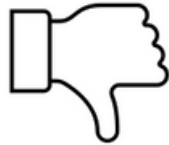
5 teachers	👍	(Positive to very positive)
1 teacher	😐	(Neutral/No effect)
1 teacher	👎	(More negative than positive)

Which components had the most positive impact on your class?

Component
Curriculum materials /Lesson Activities
Powerpoint Slides
Videos

"I liked the script (even though as a teacher, I always adlib but make sure that I stay with the message of the script)."

Key Finding #8:

The majority of students reported that they had learned valuable things in MindUP that they can use at home, at school, and with others.
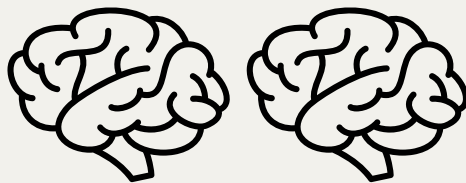
Students were asked, "How much did you learn in the MindUP Middle School program?"

LEARNED SOMETHING

94.2%

Of students reported learning something from the MindUP program, from a little to a lot.

17.4% learned
A Little

23.1% learned
More than a Little

53.7% learned
Quite a few things to
A Lot

Based on 121/145 students who responded to the question.

Most students felt they could use at least a few things from MindUP in their lives **at school.**

USING WHAT THEY LEARNED FROM MINDUP AT SCHOOL

92.4% **Of students said they could use things they learned from MindUP at school**

Some examples from students were:

"Breathing practice when I have strong emotions."

"I used breathing to focus on my homework."

"I used it when my friends started arguing with me, I listened to why they were mad instead of getting mad back instantly."

Based on 118/145 students who responded to the question.

Student Perspectives:
Using What They Learned at Home

The majority of students reported that they could use at least a few things from MindUP in their life **at home.**

USING WHAT THEY LEARNED FROM MINDUP AT HOME

91.2% **Of students said they could use things they learned from MindUP at home**

Some examples from students were:

*"Comforting my family when they feel sad"*

"I used being mindful of my surroundings when I went outside with my dog"

"I use the breathing strategy when I get an unpleasant text from my friend"

"I used some things to help me fall asleep at night."

Based on 118/145 students who responded to the question.

What Students Learned

Students reported that MindUP helped them learn about their brains, how to practice mindful awareness and focus their attention, and strategies to calm down

Legend: Not at all true | A little true to somewhat true | Pretty much true to very true
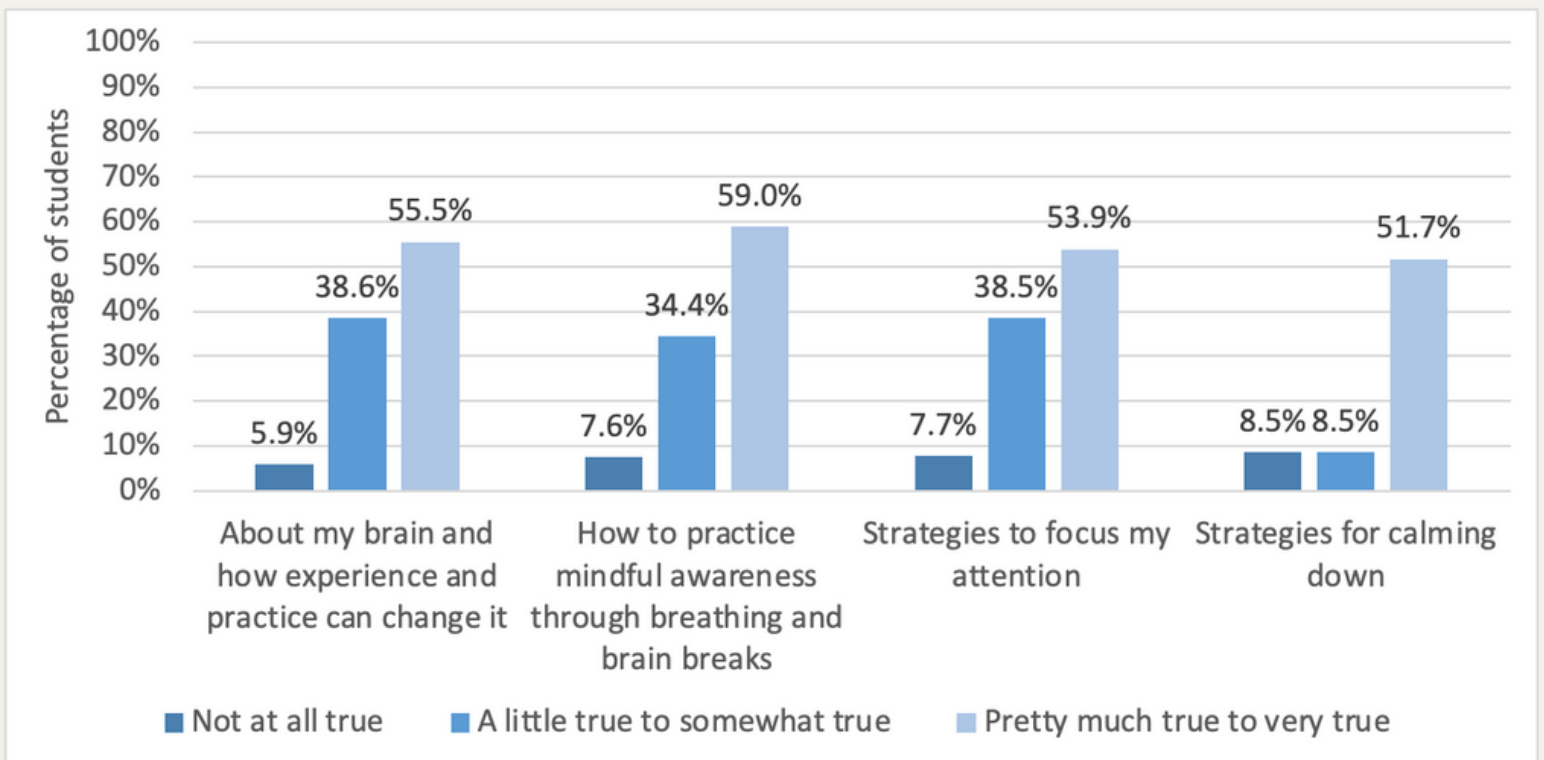
What Students Learned

Students reported that MindUP helped them learn about how to contribute to their learning community, how to be mindful of their senses and body, how their brain changes in adolescence, the importance of putting feelings into words, and about empathy.
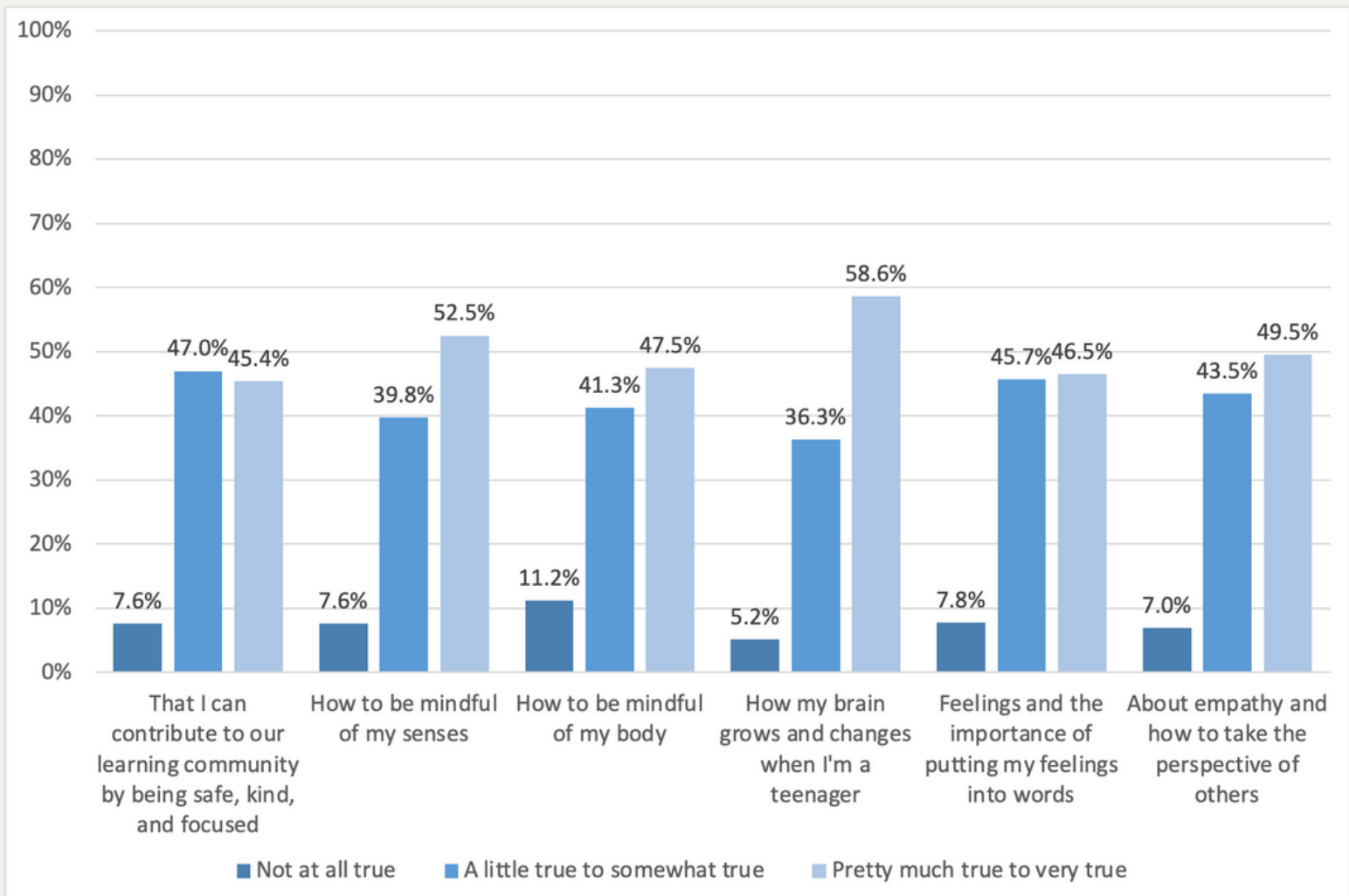
Percentages indicate the students' rating of learning

What Students Learned

Students reported that MindUP helped them learn to be more optimistic, about the benefits of gratitude and kindness, and about compassion
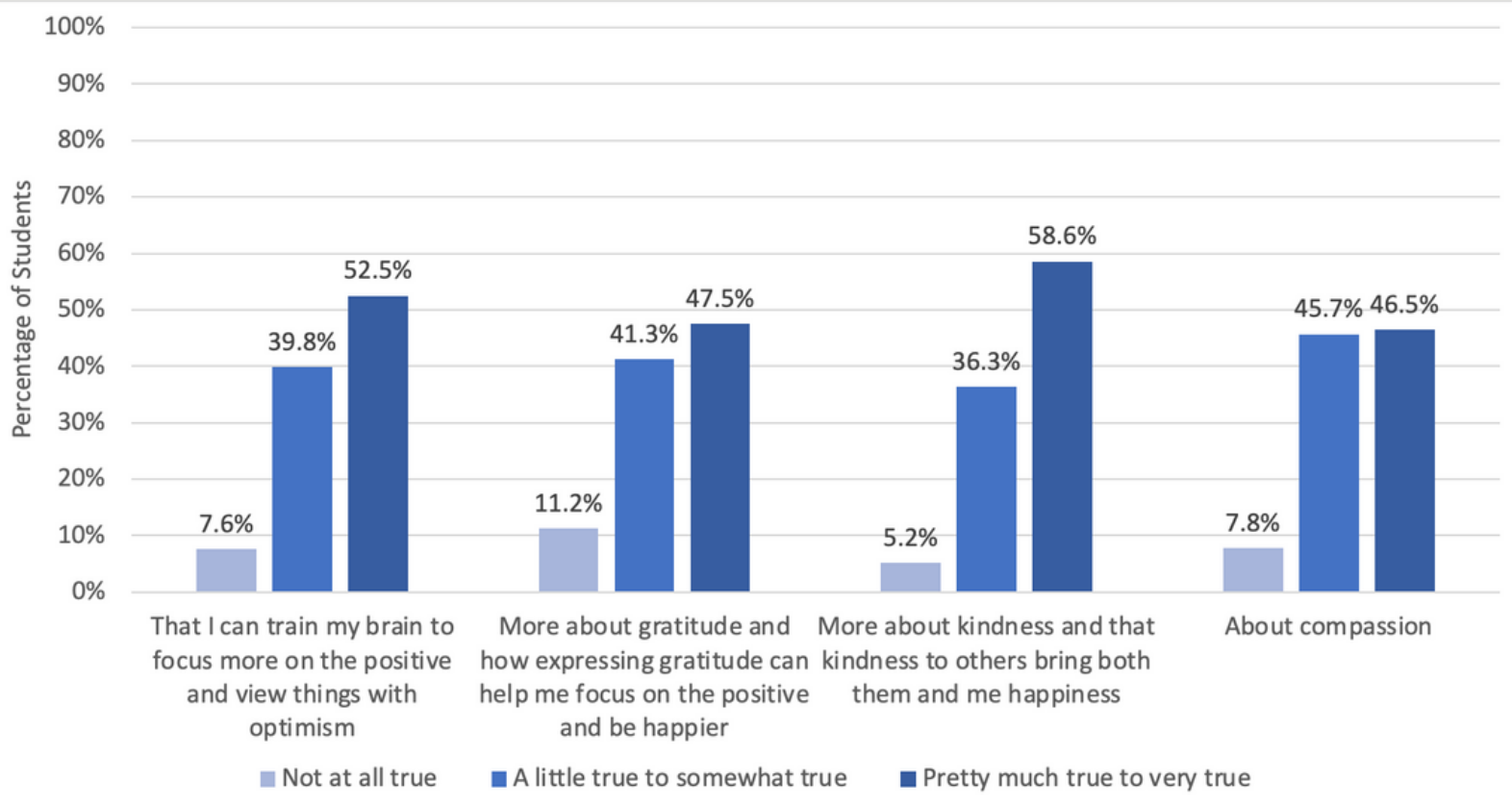
Acceptability: Students

16% **of students said they taught someone else something they learned from the MindUP program***

Of the 23 students who reported teaching someone something, the following people were listed as people they taught:

- Parent/Caregiver
- Sibling
- Friend
- Other family member/relative

Going to your favorite place and imagining yourself there

Breathing in and breathing out properly.

*I taught them the mindfulness breathing to help stress.*

About the adolescent brain

When they are very mad, I let them do the deep breath

*Note: *n* = 118. 27 students did not respond to this question

Key Finding #9:

Students who received the MindUP program significantly increased in helpfulness, compassion, and trustworthiness compared to students in comparison classrooms

Preliminary Outcomes: Students

Students in classrooms where MindUP was *implemented to a greater degree* (11+ lessons out of 15) were rated by their peers as significantly **more helpful, compassionate, and trustworthy** ("*someone you can trust*") at post-program compared to students in comparison classrooms
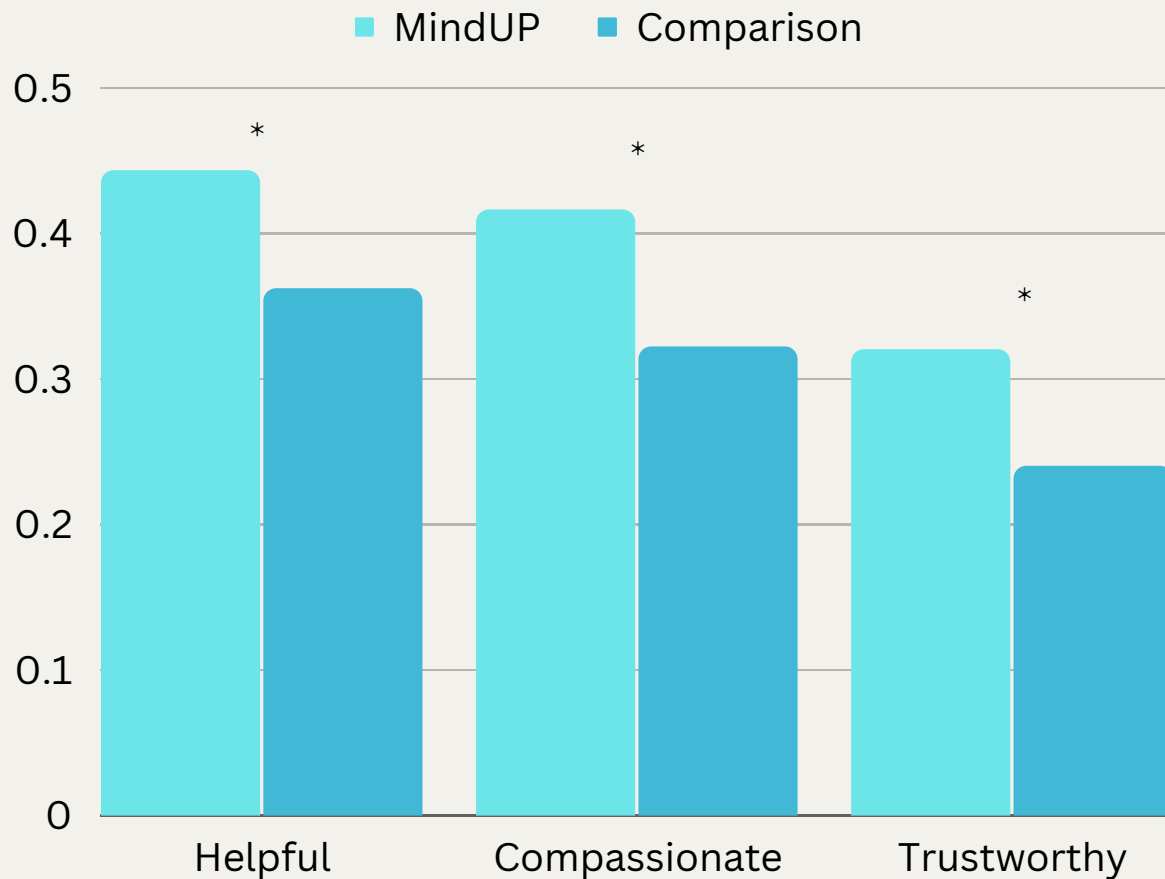
*p < .001; Effect sizes ranged from medium (.6) to large (.12)

To provide more information on the value added of bringing a school program that incorporates mindfulness attention training and caring for others to the regular school curriculum, we calculated Cohen's U3 "improvement" index to reflect the average difference between the percentile rank of the MindUP and comparison groups (Institute of Education Sciences, 2008). We found a **14%** gain in peer nominated helpfulness from participation in the MindUP program, a **16% gain** in peer-nominated compassion, and a **gain** of **17%** in peer nominated trustworthiness. Put another way, the average student in the comparison condition would demonstrate a 14 percentile increase in peer-nominated helpfulness, a 15.5 percentile increase in peer nominated Oumpassion, and a 17 percentile Increase in peer-nominated trustworthiness if they had participated in the MindUP program.

Key Takeaways

Our findings provide preliminary evidence for the feasibility, acceptability, and efficacy of the MindUP Middle School program in middle schools in BC, Canada.

Acceptability

- All teachers felt positive about MindUP and would recommend it to a colleague.
- Most students enjoyed MindUP and 47% would recommend it to a friend.

Feasibility & Fidelity

- All teachers implemented at least 60% of the lessons with at least 40% fidelity.

Student-reported benefits

- Students reported learning a little to many things in the MindUP Program
- Students reported being able to use some of what they learned in MindUP in school and at home.

Teacher-reported benefits

- Teachers reported experiencing benefits personally and professionally from implementing the MindUP program.
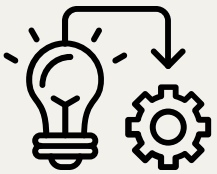
Efficacy

- MindUP students were reported by their peers as demonstrating higher compassion, helpfulness, and trustworthines, compared to comparison students.
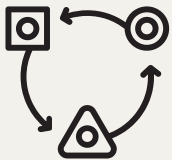
Lessons Learned

Our findings provide preliminary evidence for the feasibility, acceptability, and efficacy of the MindUP Middle School Program in middle schools in BC, Canada

Implementation

- All teachers implemented at least 60% of the lessons with at least 40% fidelity.

Pandemic adaptations

- The study was adapted to be conducted virtually (data collection & training) due to the COVID-19 pandemic

Strategic adaptations

- Most teachers made adaptations to lessons to meet the needs of their students

Teacher well-being, training, and buy-in

- Our findings support previous research that has demonstrated the importance of teacher buy-in, well-being, and training for the effective implementation of SEL programs

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APPENDICES

Implementation Components Defined

Quality of Implementation: The extent to which a provider approached a theoretical ideal in delivering a program or the effectiveness with which a program is delivered. High QOI is more likely to produce program impacts.

- **Integrity/Fidelity:** The extent to which a program's core program components (CPCs), objectives, and principles are implemented as intended. Emphasis is on integrity to CPCs not solely to a manual, rigid set of practices, curriculum, or protocol.
- **Competence:** The level of skill a teacher has in teaching the program (e.g., embodiment of foundational mindfulness qualities, knowledge, proficiency in teaching the program, commitment to mindfulness practice, and participation with students in a process of inquiry during the teaching process). Can involve domains of planning, organization, curriculum coverage, teaching mindfulness, guiding practices, and facilitation of the learning environment for programming.
- **Adaptations:** Additions or modifications made to the program either pre-emptively to adapt/align with context or participant needs (planned adaptations) or during implementation (unplanned adaptations).

Amount: The quantity of the program itself that is delivered and/or received.

- **Dosage:** The amount or how much of a program that is delivered (can also be referred to as exposure). Can include number of sessions offered, intensity of sessions, and length of time of sessions
- **Uptake:** The amount of the program received and practiced by recipients.

Goodness of Fit: Compatibility or alignment of program elements (as implemented) with aspects of a particular school context or locale (e.g., to the cultural and developmental needs and capacities of students, educators, and the school community). The fit of the particulars of the program with the particulars of the participants and context.

- **Participant Responsiveness:** The extent to which participants are engaged with, receptive to, and interested in the activities and content of the program. Responsiveness is distinct from uptake (one could attend all sessions and not be engaged) and captures any potential harms or confusion participants could have engendered.
- **Acceptability:** The extent to which a program is judged as suitable, satisfying, or attractive to program deliverers, recipients, the overall school community, other teachers and school staff, and parents. Sample outcomes include satisfaction, intent to continue to use, perceived appropriateness, and fit within organizational culture.
- **Feasibility:** The ease with which a program is implemented within a specific setting. Feasibility indicates whether a program can be examined in a more full-scale study or needs further testing. Includes buy-in, relevance, resource availability, capacity, sustainability, barriers, and facilitators.

Baelen et al., 2020