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# An Exploration of Educators' Experiences Implementing the MindUP Program During the COVID-19 Pandemic

Emily A. Barry, *The University of Western Ontario*

Supervisor: Crooks, Claire V., *The University of Western Ontario*

A thesis submitted in partial fulfillment of the requirements for the Master of Arts degree in Education

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# MINDUP IMPLEMENTATION IN THE CONTEXT OF THE COVID-19 PANDEMIC

## **Abstract**

The onset of the COVID-19 pandemic added a layer of challenge and complexity to the implementation of school-based social-emotional learning (SEL) programs such as MindUP. As we move forward and work to remediate some of the adverse consequences of the pandemic, prioritizing SEL programs such as MindUP will be a critical public health measure. As such, understanding the experiences of educators who implemented MindUP during the pandemic is critical to promote both the sustainability of MindUP and evidence-based programming in the face of future school disruptions. Using a mixed-methods study design data were collected from educators using surveys (n=59) and focus groups (n=20). Participants included educators who taught in an entirely virtual classroom as well as those who taught primarily in-person but were required to make several shifts between in-person and virtual learning throughout the 2020-2021 school year. Overall, there was considerable variation between educators' experiences implementing MindUP during the pandemic. However, the results suggested that most educators who participated in this study found the program to be worthwhile, relevant, and beneficial for both students and educators. Five overarching themes were identified and used to highlight successes, challenges, and modifications necessary to deliver MindUP during the pandemic. The findings have implications for the sustainment of the MindUP program and for virtual implementation of SEL programming more broadly which might be necessary for reasons aside from the pandemic.

*Keywords:* Social-emotional Learning (SEL), MindUP, implementation, COVID-19 pandemic, School Mental Health

## **Summary for Lay Audience**

Social-emotional learning (SEL) programs are designed to foster positive development in school-aged children by promoting positive self-image, positive behaviour, and reducing mental health challenges. The MindUP program is a mindfulness-based SEL program that has been shown to have numerous benefits for the well-being of school-aged children. While programs such as MindUP are important, there is often variation or differences in the way that educators deliver them. The COVID-19 pandemic has complicated the delivery of programs like MindUP even further. However, prioritizing the implementation of MindUP will be an important step in ensuring the well-being of school-aged children who have been negatively affected by the pandemic and associated school disruptions. The goal of the current study was to understand educators' experiences with implementing the MindUP program during the pandemic. To do this, surveys were collected from 59 educators, and focus group sessions were conducted with 20 educators. Participants included educators who taught completely online as well as educators who taught primarily in-person but were required to switch back and forth between virtual and in-person learning over the course of the 2020-2021 school year. The results suggested that educators had a wide range of experiences with implementing MindUP during the pandemic. Most educators who were able to implement MindUP believed that the program was beneficial for students and relevant during the pandemic. Despite these successes and benefits, educators identified several challenges related to delivering MindUP during the pandemic. Further, five overarching themes were identified: 1) External factors served as barriers and facilitators to implementation 2) Features of the MindUP program itself impacted implementation 3) Online implementation had advantages and disadvantages 4) Educator characteristics contributed to continued implementation, and 5) Belief in the MindUP program matters. These themes provide

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information on successes and challenges, and modifications that educators had to make to implement the MindUP program during the pandemic. The findings are important as they identify factors that impacted implementation during the pandemic and provide suggestions to educators who might implement SEL programs during future school disruptions or virtually for reasons other than the pandemic.

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### **MindUP Implementation in the Context of the COVID-19 Pandemic**

Even prior to the onset of the COVID-19 pandemic, there was an emerging consensus regarding the importance of incorporating social-emotional learning (SEL) in today's classrooms (Durlak et al., 2011; Taylor et al., 2017; Sklad et al., 2012). Given the disruption and social-emotional toll that the COVID-19 pandemic has had on the well-being of children and teachers alike, the importance of prioritizing SEL as a remediation strategy cannot be overstated (Hamoda et al., 2021; Magson et al., 2021; Schwartz et al., 2021; Pressley, 2021). SEL approaches help children cultivate the skills and environment necessary for learning and positive development and set children and youth on a trajectory for later success (Greenberg et al., 2003). Similarly, interest and uptake in mindfulness-based interventions have grown in recent years. For school-aged children, mindfulness-based interventions have been found to have a wide array of positive benefits in realms such as cognitive functioning (e.g., executive functioning), reducing stress, and fostering resilience (Broderick & Metz, 2009; Flook et al., 2010; Zenner et al., 2014). In this manner, SEL and mindfulness-based interventions share several similarities and common goals (Feuerborn & Gueldner, 2019; Greenberg, 2014; Lawlor, 2016). Some interventions now combine elements of both SEL and mindfulness programming.

The MindUP program is a mindfulness-based SEL program implemented by classroom teachers (Hawn Foundation, 2008). Evidence has demonstrated that the MindUP program is beneficial in promoting emotion regulation, optimism, empathy, increased executive functioning, and academic achievement in children (Crooks et al., 2020; de Carvalho et al., 2017; Maloney et al., 2016; Schonert-Reichl et al., 2015; Schonert-Reichl & Lawlor, 2010). In addition to having benefits for students, the MindUP program appears to be a promising avenue for addressing

teachers' well-being and reducing stress and symptoms of burnout (de Carvalho et al., 2017; Kim et al., 2021).

While the program's effectiveness has been clearly demonstrated, there is considerable variation in the implementation of mindfulness-based interventions such as MindUP (Durlak et al., 2011; Sklad et al., 2012; Zenner et al., 2014). The implementation quality of evidence-based interventions is influenced by many interrelated contextual factors (Domitrovich et al., 2008). Domitrovich et al. (2008) present a multi-level framework that considers a range of factors that influence implementation. These are organized into macro-level, school-level, and individual-level factors. Critically, the COVID-19 pandemic has the potential to exert its influence on each of these levels, in turn affecting implementation quality.

In the context of the COVID-19 pandemic and subsequent recovery, the implementation of universal SEL programs like MindUP will play a valuable role in the remediation of negative consequences associated with the pandemic. However, given the added complexities of the pandemic, the extent to which the pandemic has affected the implementation of the MindUP program is unknown. The goal of the proposed study is to explore teachers' perspectives of and experiences with implementation of the MindUP program during the COVID-19 pandemic.

### **School-based Social Emotional Learning (SEL)**

In recent years there has been a growing interest in social and emotional learning (SEL) within the field of education as a means of fostering positive youth development (Durlak et al., 2015). Fostering SEL competencies in young children is essential in building a foundation for later success in academics and everyday life (Greenberg et al., 2003; Zins et al., 2004). SEL interventions teach and promote the acquisition of interrelated competencies, including self-awareness, relationship skills, social awareness, and responsible decision-making (acEL, 2013).

Given the considerable amount of time that children spend in the classroom, the school setting is ideal for implementing interventions that promote SEL competencies among young learners (Domitrovich et al., 2017; Durlak et al., 2011; Sklad et al., 2012).

Many school-based SEL programs have been developed and implemented in k-12 schools (Durlak et al., 2011). Previous literature has demonstrated that well implemented SEL programs positively effect several outcomes related to social and emotional skills including, positive self-image, prosocial behaviour, reduction of mental health issues (e.g., anxiety and depression), and negative behaviours (Durlak et al., 2011; Sklad et al., 2012). In addition, the implementation of SEL programs has been found to improve academic performance in school-aged children (Durlak et al., 2011; Sklad et al., 2012). The academic and social realms of schooling are inherently related, allocating time to develop the SEL skills of children is one way to promote academic achievement (Oberle et al., 2016). Further, a more recent meta-analysis that reviewed 82 school-based SEL interventions provides evidence of the long-term positive benefits of school-based SEL approaches (Taylor et al., 2017).

### **Mindfulness-Based Interventions**

Mindfulness training is an approach that involves the development of non-judgmental awareness of the present moment (Kabat-Zinn, 2003). Mindfulness-based interventions train individuals to develop skills using a structured program that typically consists of experiential practice (Crane et al., 2017; Emerson et al., 2020). Such interventions provide the opportunity for students to learn critical skills such as regulating attention and emotions as well as developing a sense of empathy and compassion (Shapiro et al., 2008). Fostering these skills in children ensures that they are equipped to deal with future challenges and adversity (Shapiro et al., 2008). Interest in disseminating mindfulness-based interventions in schools has also grown

rapidly in recent years (Semple et al., 2016). Previous literature on mindfulness interventions suggests that training positively impacts students' cognitive functioning (e.g., executive functioning) and outcomes such as stress, coping, and resilience (Broderick & Metz, 2009; Flook et al., 2010; Zenner et al., 2014). In addition to benefits for students, mindfulness can promote resilience, well-being, and reduce burnout among teachers implementing the intervention (Kim et al., 2021; Roeser et al., 2012).

### **The Conceptual Fit Between SEL and Mindfulness-Based Interventions**

Parallels can be drawn between SEL interventions and mindfulness interventions as they share a number of commonalities (Greenberg, 2014; Feuerborn & Gueldner, 2019; Lawlor, 2016). As both SEL frameworks and mindfulness interventions continue to grow in the field of education, there is an interest in considering how mindfulness-based interventions align with the five-competency area framework of SEL (CASEL, 2013). In this regard, similarities can be drawn between the fields of SEL and mindfulness, as both seek to promote the overall well-being of school-aged children by fostering skills that are necessary for success in both school and life (Feuerborn & Gueldner, 2019). While the SEL framework and mindfulness-based interventions are both separable constructs, they can be integrated in a manner where mindfulness-based skills and techniques taught to students deepen the core competencies of SEL (Feuerborn & Gueldner, 2019; Greenberg, 2014; Lawlor, 2016). In this regard, mindfulness interventions provide students with concrete tools that allow them to adopt and apply SEL theory. Greenberg (2014) conceptualizes the relation between the two disciplines by outlining how various mindful practices relate to each of the SEL competencies outlined by CASEL (2013). For example, training in mindful breathing can develop the SEL competency of self-awareness, while exercises in mindful listening can promote relationship skills. Mindfulness-based interventions

can be used in tandem with SEL theory to further promote and develop the critical skills needed by young people to be resilient, knowledgeable, and contributing members of society (Greenberg, 2014).

### **The MindUP Program**

The MindUP program is a universal mindfulness-based SEL program designed to promote overall well-being and foster 21<sup>st</sup>-century skills in children that are essential for future success (Hawn Foundation, 2008). The program combines evidence-based principles from positive psychology, neuroscience, contemplative science, and mindfulness. MindUP consists of 15 lessons related to sharpening senses, improving attitude, and taking action mindfully. Additionally, it includes a core mindfulness breathing practice, known as a Brain Break. During the Brain Break, students focus their attention and breathing by listening to a resonant sound.

There is a growing body of evidence demonstrating the multitude of benefits that the MindUP program can have for both young children and educators (Crooks et al., 2020; de Carvalho et al., 2017; Kim et al., 2021; Maloney et al., 2016; Schonert-Reichl et al., 2015; Schonert-Reichl & Lawlor, 2010). Of note, Schonert-Reichl et al. (2015) conducted a randomized control trial among Grade 4 children using the MindUP program. The results show that compared to peers in the control group, children who completed the MindUP program demonstrated improvement on several measures including emotional regulation, optimism, empathy, prosociality, improvements in executive functioning, improved academic performance, and reductions in depressive symptomology. More recent evidence provides additional confirmation for the widespread benefits of the intervention, indicating that kindergarten students exposed to the MindUP program displayed improvements in behavioural symptoms,

internalizing and externalizing problems, and increased executive functioning skills (Crooks et al., 2020).

In addition to the positive impacts on indicators of well-being in young children, the MindUP program can be beneficial for teachers who are implementing the program (de Carvalho et al., 2017; Kim et al., 2021). For instance, teachers who implemented the MindUP program in their classrooms reported improvements in the areas of observing, personal accomplishment, and self-kindness (de Carvalho et al., 2017). In addition, when combined with trauma-informed training, MindUP delivery was found to positively benefit educators' attitudes and levels of burnout (Kim et al., 2021).

While the benefits of school-based mindfulness programs (e.g., MindUP) have been demonstrated in the literature, several reviews have highlighted issues relating to the heterogeneity of implementation of mindfulness-based programs (Emerson et al., 2020; McKeering & Hawng, 2019; Zenner et al., 2014). Although previous research has linked implementation quality with student outcomes (Durlak & DuPre, 2008; Domitrovich et al., 2008), theory and research do not align with how to incorporate evidence-based programs into school curriculum while maintaining high implementation quality (Domitrovich & Greenberg, 2000). This disparity between research and practice highlights the need to further investigate the implementation of mindfulness-based programming in schools to better understand factors that affect implementation quality, such as implementation successes and challenges (Emerson et al., 2020; Maloney et al., 2016). It is imperative to consider often overlooked contextual factors that affect multiple levels of implementation if programs such as MindUP are to be sustainable (Emerson et al., 2020; Domitrovich et al., 2011).



### **A Multi-level Conceptual Framework for Understanding Implementation Quality**

Promoting the uptake of evidence-based practices can be a challenge for practitioners, researchers, and policymakers alike (Domitrovich et al., 2008). As a result, the field of implementation science has emerged with a goal to bridge the gap between evidence-based practice, research, and real-world settings (Williams & Beidas, 2019). As previously mentioned, universal social-emotional learning interventions are commonly implemented in schools (Domitrovich et al., 2008). However, implementation quality is an often-overlooked feature of the implementation process, especially with respect to the school setting (Durlak & DuPre, 2008; Wandersman et al., 2008). Implementation quality is the degree to which an evidence-based intervention is intended to be implemented and how the intervention is delivered in the real-world context (Domitrovich et al., 2008).

Domitrovich et al. (2008) present a conceptual framework for understanding the numerous contextual factors that influence implementation quality of interventions designed for use in schools (see Figure 1). The framework is multi-level and includes several contextual factors situated at the macro-level, school-level, and individual-level. Domitrovich et al. (2008) note that these factors work bidirectionally to influence implementation quality directly or indirectly. The implementation of evidence-based programs in schools does not occur in isolation, it is influenced by environmental factors. Factors at all three levels can influence each other across or within levels, and this can have a subsequent influence on implementation quality and, in turn, student outcomes.

Macro-level factors are broad, community-related factors that can affect the implementation of school-based programming. Examples of factors within this level of the framework include policies (e.g., government policy and legislation) and financing, at both the

educational/district and government levels. Further, leadership and human capital also can influence implementation processes. For example, the availability of qualified professionals to implement and support programs in schools such as coaches or trainers and the allocation of professional development time can also exert influence on implementation quality at the macro-level. Another important contextual factor that can affect implementation is that of community-university partnerships. Community-university partnerships are valuable in that researchers can aid in the implementation of evidence-based programming in schools. Together, schools and universities can identify specific needs and provide training and support to school staff.

At the second level of the framework (i.e., the school-level), the school itself, including its organization, is an essential feature that can influence the implementation quality of evidence-based programs. School structures (e.g., decision structure) and policies and resources available to support interventions are factors that can potentially exert an influence on implementation. Further, because school staff and students share the school environment, the school climate is composed of staff and student perceptions and relationships that exist within the school (Domitrovich et al., 2008; Hoagwood & Johnson, 2003). Other factors such as administrative leadership (i.e., having a leader that supports implementation), school climate and organizational health, personal expertise (i.e., administrators and educators), and characteristics of the school such as school size and student mobility are all contextual elements of the school environment that can affect implementation quality (Domitrovich et al., 2008). One significant factor contained within the school-level is the construct of classroom climate. Classroom climate relates to student-teacher relationships, peer-peer relationships and more generally, feelings of belonging, cooperation, and respect in the classroom setting (Runcinski et al., 2018, Wang et al.,

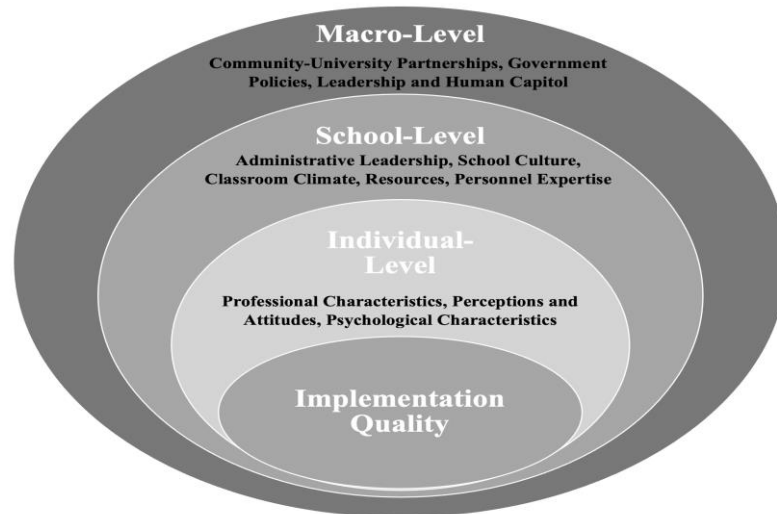
2020). Classroom climate also consists of teaching practices, which can influence the quality of implementation at the school-level.

Individual-level factors influencing implementation quality are positioned at the third level of the conceptual framework (Domitrovich et al., 2008). Individual level influences such as professional characteristics, and perceptions and attitudes related to the intervention are contextual factors that can serve as barriers or facilitators to program implementation. Professional characteristics such as knowledge of the intervention (i.e., program theory and components), efficacy and comfort in delivering the intervention, psychological functioning (e.g., stress, depression) all have the potential to influence implementation quality. Further, perceptions and attitudes of the intervention, including acceptance, satisfaction, and engagement in training sessions, are factors that can affect implementation.

Domitrovich et al.'s (2008) model highlights a myriad of contextual factors that are interdependent and bidirectional. Each of the factors nested within the three levels of the framework has the potential to influence implementation processes in different ways. Further, the model recognizes the complexity of implementing evidence-based interventions at the school level and considers the dynamic range of contextual factors that are potentially at play.

**Figure 1**

*Adapted and Simplified Version of Domitrovich et al. 's (2008) Multi-Level Framework with Select Examples*



### **The Widespread Impact of the COVID-19 Pandemic**

The COVID-19 pandemic has fundamentally changed the daily lives of individuals worldwide; this is especially true for students, their families, and teachers. In an effort to stop the spread of COVID-19, school buildings were forced to close, resulting in a sudden transition from in-person to online learning (OECD, 2020). To describe the online learning setting, the terms online, virtual, and remote are used interchangeably below. Between March 14<sup>th</sup>, 2020, and May 15<sup>th</sup>, 2021, Ontario schools were closed for a total of 20 weeks, the longest closure out of all Canadian provinces and territories (Gallagher-Mackay et al. 2021). With respect to the 2020-2021 school year, various delivery models were implemented. Parents and caregivers were able to choose between fully remote schooling, blended/hybrid models, or fully-in person with remote learning during mandated school closures. In September of 2020, a staggered and phased reopening of schools was implemented for those learning in-person. Following the second wave

of the pandemic in January of 2021, most schools were closed again, and the majority of schools were re-opened by mid-February. In April, the government announced province-wide elementary school shutdowns once again (Gallagher-Mackay et al., 2021).

Students, in particular, are thought to be multiply impacted by COVID-19, as they navigate isolation from peers and family as a result of physical distancing, concerns about their own health and their family's health, and challenges associated with online learning (Magson et al., 2021; Schwartz et al., 2021). The fear and uncertainty associated with the rapidly changing landscape of the pandemic has put many students at risk for emotional distress (Hamoda et al., 2021). Emerging evidence related to the COVID-19 pandemic in China suggests that the mental health of primary school-aged children is an area of concern (Xie et al., 2020). The exact extent of the pandemic's effects on children and youth mental health remains largely unknown, however; speculations about the effects of the pandemic on children's mental health, relationships, and well-being include the potential of increased mental health concerns among this age group (Schwartz et al., 2021; Racine et al., 2020).

While all children have been affected by the pandemic to some extent, the consequences associated with COVID-19 have been amplified for children and youth in vulnerable social positions (Masten & Motti-Stefanidi, 2020; OECD, 2020). The current public health crisis has exacerbated the stressors already faced by children who struggle with poverty, neglect, food insecurity, homelessness, racism, and violence (Masten & Motti-Stefanidi, 2020). The pandemic exposed a variety of inequities experienced by adversity-affected children and youth, including inequities deeply rooted within our education system (e.g., access to technology for remote learning; Masten & Motti-Stefanidi, 2020; OECD, 2020). Children and youth in vulnerable positions have been forced to navigate these challenges in addition to the host of challenges

presented by the pandemic, and in many cases, with fewer resources and protective factors compared to their peers who do not come from disadvantaged backgrounds (Masten & Motti-Stefanidi, 2020).

COVID-19 has required teachers to quickly adapt to different teaching environments, daily routines, and instructional approaches (Pressley, 2021; Sokal et al., 2020a, Sokal et al., 2020b). As teachers pivoted to remote learning, hybrid teaching, or in-person teaching with strict public health guidelines, they faced parallel challenges related to new instructional pedagogy, job expectations, and classroom requirements. Prior to COVID-19, the profession of teaching was commonly associated with burnout, anxiety, and exhaustion (Ferguson et al., 2017; Ingersoll et al., 2018). As a result of the pandemic, teachers' workloads and levels of burnout have likely been compounded by the demands of teaching during the pandemic (Pressley et al., 2021; Sokal et al., 2020a, Sokal et al., 2020b). While data related to the COVID-19 pandemic and education are in their infancy, one study investigated unique stressors that are closely related to burnout (Pressley, 2021). These include COVID-19 related anxiety, anxiety associated with new teaching demands, parent communication, and administrative support. Further, a study conducted by Sokal et al. (2020a) suggests that teacher efficacy, attitudes toward change, and perceptions of administrative support were related to teacher resilience and burnout at the beginning of the pandemic.

### **The Role of SEL in COVID-19 Recovery**

Pre-pandemic literature converges on the stance that fostering SEL competencies in school-aged children is imperative for promoting overall well-being as well as academic achievement (Durlak et al., 2011; Sklad et al., 2012). Further, studies conducted before the COVID-19 pandemic demonstrate the benefits of SEL for all children, including children in

vulnerable positions who may be at risk (Domitrovich et al., 2017; Oberle et al., 2016). In this regard, teaching SEL skills is critical in the context of challenge and adversity, for example, in times of rising mental health concerns (Oberle et al., 2016). Domitrovich et al. (2017) suggest that universal SEL interventions are important for all learners but are thought to be especially important in counteracting the negative effects associated with adversity and risk. The authors noted that implementing school-based universal SEL interventions is a worthwhile public health approach.

The aforementioned pre-pandemic literature can be drawn on to create a case for the ever-important value of prioritizing school-based SEL interventions in our current climate. As we work to remediate some of the adverse effects of COVID-19, universal SEL interventions will continue to serve as critical public health measures as they foster resilience, improve mental health, and aid students in developing the capacity to “learn to learn” (Darling-Hammond & Hyler, 2020; Hamoda et al., 2021). Emerging data on the effects of school closures suggests deleterious effects on both academic achievement and SEL skills (Santibañez & Guarino, 2020). Santibañez & Guarino (2020) used data from students with above-average levels of absenteeism (i.e., more than 50 days) to stimulate the effects of school closures related to the pandemic. The results provide an indication of the costs to both learning and SEL skills because of the pandemic. Specifically, SEL skills related to social awareness, self-efficacy, and self-management were negatively impacted by absenteeism in the study. Additionally, a study investigating parents’ experiences during school closures indicated that parents expressed concern for their children’s social-emotional development at an equal rate to worries related to academic achievement (Garbe et al., 2020). It is becoming increasingly clear that universal SEL interventions will be critical tools to address children’s reduced mental health and academic

achievement experienced as a result of the pandemic. (Darling-Hammond & Hyler, 2020; Hamoda et al., 2021; Garbe et al., 2020). As previously mentioned, the increased demands placed on teachers due to the pandemic are likely contributing to increased burnout and stress (Pressley, 2012; Sokal et al., 2020a; Sokal et al., 2020b). As such, it is imperative to consider the well-being of teachers in addressing the consequences of the pandemic on school mental health (Hamoda et al., 2021).

Given that the MindUP is an established program that is associated with a range of benefits for both students and teachers, it will likely be a valuable tool for addressing the impact of COVID-19 in the school setting. Many of the benefits of the MindUP program align well with evidence-based recommendations for addressing the impacts of COVID-19 in children and youth. For example, the OECD (2020) recommends intentional efforts to cultivate students' executive functioning, self-management, and ability to learn independently. The MindUP program has been found to improve each of these SEL skills in addition to promoting academic achievement (Durlak et al., 2011; Crooks et al., 2020; Sklad et al., 2012). Further, the recent evidence suggesting the benefits of MindUP for teacher's well-being and burnout (Kim et al., 2021) suggest that it can be used to promote the mental health and well-being of teachers.

### **Implementation in the Context of COVID-19**

Consideration of factors that influence the implementation process in the school setting is especially important for the implementation of evidence-based programs (e.g., mindfulness interventions such as MindUP; Zenner et al., 2014). Further, many researchers suggest that an essential component of remediating the adverse effects of COVID-19 is bolstering students' social-emotional skills through the implementation of SEL programs with the goal to promote wellness during and after the pandemic (Darling-Hammond & Hyler, 2020; Hamoda et al.,



2021). However, the pandemic has added a layer of complexity to the implementation process given the disruption and confusion associated with intermittent closing and opening of schools and hybrid learning. In order to make adaptations and adjustments to evidence-based programming to meet the needs of students and teachers during these uncertain times, it is essential to first understand implementation processes, including barriers and facilitators to implementation with special consideration to the added complexities of the COVID-19 pandemic. The multi-level implementation framework presented by Domitrovich et al. (2008) provides a useful lens for considering the impact of the pandemic on implementation as it allows for the conceptualization of the dynamic interplay among each of the three levels, reciprocal relationships between factors contained within levels, and the positioning of the COVID-19 pandemic as an overarching external factor. A study by Dowling & Barry (2020) evaluated the implementation quality of a mindfulness-based social emotional learning program called MindOut. They assessed the impact of variability on implementation quality using Domitrovich et al.'s (2008) multilevel framework to identify a variety of factors that impacted implementation (e.g., participant and educator, program factors, organizational factors) and results indicated that it was an effective way of conceptualizing implementation quality of a school-based mindfulness program. However, this study was conducted prior to the COVID-19 pandemic.

The influence of COVID-19 on the implementation process is likely variable by context (i.e., between schools). When considering Domitrovich et al.'s (2008) multi-level implementation framework, it is clear that the pandemic can potentially have a range of effects on implementation, from having a cascading influence on each of the levels to impacting individual contextual factors. Critically, it can be inferred that the pandemic has impacted each level and factor contained within the framework in some capacity. With respect to the

framework, macro-level factors such as government and educational policies and financing are likely to have a cascading influence on other levels and factors in the framework in the context of COVID-19. For example, government policies related to the closure of schools, the transition to remote learning, hybrid learning, or in-person learning with adherence to physical distancing measures and other public health guidelines (e.g., masks) have the potential to influence other macro-level factors such as resources related to the availability of trainers and implementation coaches and training itself (i.e., virtual training). For programs like MindUP, which include core components of breathing exercises and lessons related to mindful tasting and mindful touching (Hawn Foundation, 2008), public health guidelines directly affect program implementation. Additionally, these guidelines impacted school-level factors such as organizational structure, and school climate and culture (Grooms & Childs, 2021). Also at the macro-level, the fiscal state of both the government and the education system may impact both human and tangible resources. One macro-level factor that may serve as a facilitator to implementation during the pandemic are school-university partnerships. Such partnerships can serve as a facilitator to implementation by creating digital networks of support that allow for the dissemination of knowledge, support and sharing of resources (Hodges et al., 2020). However, to some extent, school-university partnerships were affected by the pandemic in that in-person trainings, and meetings were not able to be held in-person.

At the school-level, administrative leadership and decision-making structure are factors that may work in tandem to influence other within-level factors such as school climate and culture (Grooms & Childs, 2021). That is, administrators' decision making about the pandemic including the development of organizational structures and routines, allocation of school resources, and their prioritization of SEL programs has the potential to influence school climate

and culture, classroom climate, and even individual-level factors such as perceptions and attitudes to the intervention and engagement during training.

Finally, at the individual-level professional characteristics such as teacher efficacy (i.e., knowledge of program components, proficiency in delivering program components) may have been impacted by training format. Teachers trained during the pandemic were likely trained on virtual platforms and likely received adapted training. As such they may have differing levels of comfort and proficiency in delivering content. Further related to teacher efficacy and implementation is level of burnout (Ransford, 2008). As noted, increased demands associated with the pandemic are producing significant levels of burnout among teachers (Pressley et al., 2021; Sokal et al., 2020a, Sokal et al., 2020b). As such, this is an important implementation consideration as some teachers may find the implementation of programs such as MindUP to be helpful toward their own wellness, while others may perceive it as an additional task in an already unmanageable workload. In order to prioritize the implementation of SEL programs such as MindUP as a means of addressing the negative consequences of the pandemic, adaptations to the program will undoubtedly have to be made in order to ensure that implementation is feasible in today's context.

### **The Current Study**

The purpose of the current study was to explore implementation of the MindUP program during the COVID-19 pandemic from the perspective of educators. The goal of the current study was to understand how the MindUP program was used during the COVID-19 pandemic (e.g., implementation successes and challenges, modifications and adaptations, and decision-making processes surrounding MindUP implementation during pandemic).

Given the changing landscape of the COVID-19 virus, it is too early to predict how future school years will look for both students and teachers. Obtaining a snapshot of the implementation process in light of the current pandemic will allow for adaptations and adjustments to be made to ensure the sustainability of the MindUP program and ultimately, promote the well-being of both students and teachers. It may also identify general recommendations for implementing the program in a virtual context, which could be required for reasons other than a pandemic.

## **Method**

### **Study Design**

A mixed-method approach (i.e., qualitative and quantitative methods) was utilized to collect data to gain a rich understanding of educators' experiences with and perspectives of implementation in the pandemic context. To guide the research, the following questions were considered:

1. What were the successes and challenges associated with implementing the MindUP program during a pandemic?
2. What program adaptations and modifications were made to adhere to COVID-19 guidelines or transitions between in-person, hybrid, and virtual learning contexts?
3. What decision-making processes did educators engage in when deciding to begin and continue with implementation of the MindUP program during the COVID-19 pandemic? Alternatively, what decision-making processes did educators engage in when deciding to discontinue implementation of the MindUP program during the pandemic?

## **Participant Recruitment**

The Centre for School Mental Health (CSMH) at Western University has an established partnership with the London District Catholic School Board (LDCSB) to implement and evaluate the MindUP program in elementary schools. The current study is a part of a larger project entitled MindUP for Young Children. Participants in the current study were comprised of educators (i.e., teachers or early childhood educators) at LDCSB who were trained in the MindUP program and had the opportunity to implement the program during the 2020-2021 school year. As part of the MindUP for Young Children Project, educators trained in the MindUP program were also trained in a Trauma-Informed Framework (Kim et al., 2021).

Educators within the LDCSB who have been trained in MindUP and trauma-informed practices received an invitation to participate in the study (See Appendix A). The email contained a URL to an online letter of information (LOI) and consent contained within the Qualtrics platform (See Appendix B for participant LOI and consent). Qualtrics is a survey software that allows for the creation and distribution of online questionnaires. The online LOI and consent described the objective of the study and provided educators with options for participation in the research project. Educators were provided the option to 1) complete the MindUP Modifications and Satisfaction Survey, 2) participate in an online focus group, or 3) participate in both. All procedures were approved by Western University's Non-Medical Research Ethics Board (Appendix C).

## ***MindUP Training***

Participants received different training formats and durations depending on when they were trained in the MindUP program (See Table 1 for a detailed summary of MindUP educator training from 2016-2021). All educators trained in MindUP from 2016 -2019 (i.e., the 2016-

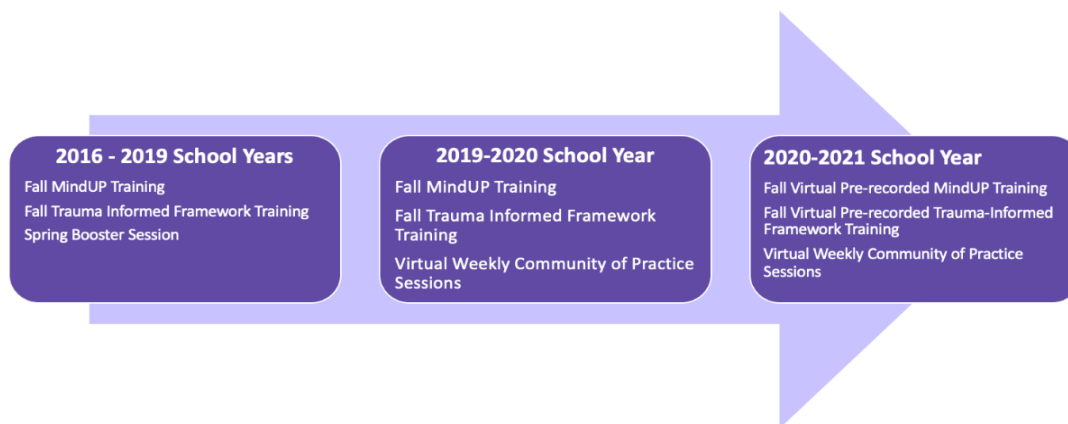
2017, 2017-2018, and 2018-2019 school years) received in-person MindUP training from a MindUP trainer from the Hawn Foundation. Educators attended a one-day training session in the Fall of the school year as well as a half-day trauma-informed framework training. Educators also received a booster training session in the Spring of their training year. This booster session was interactive and allowed for discussion and collaboration. Educators trained in the 2019-2020 school year received the typical in-person Fall MindUP training session and trauma-informed framework training. However, due to the COVID-19 pandemic, educators were not able to attend the Spring booster session that educators had attended in previous years. To offset the loss of the booster session, virtual community of practice sessions were held to emulate the interactive booster sessions. These community of practice sessions were held weekly. Given restrictions and guidelines related to the COVID-19 pandemic, educators trained in 2020-2021 were trained entirely online. MindUP and Trauma-Informed Framework training was pre-recorded and posted online for educators to watch on their own time. These sessions included the same content as the previous year's training; however, it was shorter. The MindUP training videos were approximately two hours, and the Trauma-Informed Framework training was approximately an hour. Additionally, educators trained within the 2020-2021 school year were offered weekly virtual community of practice sessions to compensate for the lack of booster sessions. Figure 2 provides a timeline of MindUP training from 2016-2021.

**Table 1**

*Detailed Overview of MindUP Educator Training from 2016-2021*

<b>School Year(s)</b>	<b>Training format</b>	<b>Number of Attendees</b>	<b>Facilitator(s)</b>	<b>Training hours</b>	<b>Booster Session</b>	<b>Implementation Supports</b>
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<b>2016-2017</b>	In-person	27* 32* 68*	Hawn Foundation Trainer	5 hours	In-Person, Full day (5 hours)	Curriculum (books), chimes and breathing balls (Hoberman Spheres) Implementation kits (storybooks, mindfulness cards, lesson extensions, parent handouts, tip sheets, and curriculum alignment document)  Social workers provided coaching and technical assistance
<b>2017-2018</b>						
<b>2018-2019</b>						
<b>2019-2020</b>	In-person (two training days offered)	61*	LDCSB District Trainers with on-site Hawn Foundation Trainer/Consultant	5 hours	Online workshops	Curriculum, chime, breathing ball  Implementation kits (including French storybooks)
<b>2020-2021</b>	Online, pre-recorded webinar	124 added to the online training site; 51 confirmed training and were provided curriculum and resources.	Self-directed	1 hour	Online Coaching Calls	Implementation resources provided online  Curriculum books, chimes, and breathing balls  SEL staff facilitated mindfulness-related presentations and coaching

**Figure 2***Timeline of Educator Training for the 2016-2021 School Years****Survey Participants***

A total of 59 educators completed the online MindUP satisfaction and modifications survey. All educators who completed the survey participated in MindUP training to some degree as described in the aforementioned section. The majority of participants reported having previous experience implementing the MindUP program (64.4%), while 35.6% of educators reported that the 2020-2021 school year was their first time implementing the program. Just under half (44.8%) of educators indicated teaching at the kindergarten level, 17.2% reported teaching grade one, 6.9% grade two, and 12.1% taught grade three. Additionally, 17.2% of educators reported teaching in a multi-grade (e.g., a grade 2/3 split) classroom. Table 2 provides an overview of survey participant demographics. Nearly half of the participants (49.2%) had been teaching for 16 or more years.



**Table 2***Survey Participant Demographics (N=59)*

Demographic	N	Percentage (%)
Grade <sup>a</sup>		
Kindergarten	26	44.8
Grade 1	10	17.2
Grade 2	4	6.9
Grade 3	7	12.1
Grade 4+	1	1.7
Split Grade	10	17.2
Teaching Experience		
Less than 5 years	7	11.9
6-10 years	12	20.3
11-15 years	11	18.6
16 or more years	29	49.2
Previous MindUP Experience		
First time implementer	21	35.6
Experienced Implementer	38	64.4

<sup>a</sup> Totals do not add to 59 as one participant omitted this item***Focus Group Participants***

In total, 20 educators participated in focus group sessions. We provided multiple opportunities for educators to participate in focus group sessions to be mindful of the increased responsibilities placed on educators during the COVID-19 pandemic and to ensure that participation in the current study was not seen as an additional burden. If an educator indicated an interest in participation but could not attend a scheduled focus group slot, we created additional time slots to ensure they had the opportunity to participate. Consequently, the number of participants in each focus group varied from five participants to one participant, meaning the focus group was instead conducted as an individual interview.

Of the 20 focus group participants, 18 participants reported having previous experience with implementing the MindUP program, and two participants reported implementing the

MindUP program for the first time in the context of the COVID-19 pandemic. Further, 19 of these participants reported participating in the in-person MindUP training between 2016 and 2020 (Refer to Figure 2 for training timeline). Seventeen participants described their teaching role as classroom teachers. In comparison, three participants reported that their role was an ECE. Eighteen participants reported that they were teaching in an in-person setting during the 2020-2021 school year and two participants taught in an entirely virtual context for the entire school year. Although 18 educators were assigned to in-person teaching, in the context of the pandemic, in-person teaching was associated with multiple transitions between in-person and virtual learning. Table 3 provides an overview of focus group participants who received online training, were first-time MindUP implementers, were assigned to entirely virtual classrooms, and held the role of ECE. The majority of focus group participants were educators who had received in-person training. Given that the number of focus group participants who received online MindUP training, were first-time implementers, taught MindUP in an entirely virtual context, and were ECE's was small, a systematic analysis of these covariates was not feasible. Most focus group participants implemented MindUP in a kindergarten to grade 3 classrooms. However, two participants reported delivering MindUP to older students, one delivered MindUP in a grade 6 classroom and one in a grade 6/7 split.

**Table 3**

*Focus Group Participants with Atypical Experiences*

Focus Group Participant ID	MindUP Experience	Training Format	Teaching Assignment	Teaching Role
P02	Previous experience	In-person training	In-person teaching	ECE
P08	First time implementer	In-person training	In-person teaching	Classroom teacher

P14	First time implementer	Virtual training	Fully virtual teaching	Classroom Teacher
P15	Previous experience	In-person training	In-person teaching	ECE
P20	Previous experience	In-person training	Fully virtual teaching	ECE

## Materials

### *MindUP Project Satisfaction and Modifications Survey*

The MindUP Project Satisfaction and Modification Survey (see Appendix D) was completed by participants using the online platform Qualtrics. Earlier versions of the survey have been used in previous phases of the MindUP for Young Children Project. However, for the present study, the survey was adapted to ensure its relevance to implementation in the context of the COVID-19 pandemic.

The survey included 29 questions regarding facilitator characteristics and classroom information (e.g., is this your first time delivering the MindUP program?), overall satisfaction with MindUP during the COVID-19 pandemic (e.g., To what extent do you feel the MindUP program was suitable to teach during the pandemic?), modifications to MindUP during the COVID-19 pandemic (e.g., This school year did you alter or modify any lessons or activities to address the challenges indicated above? If yes, please indicate which lesson or activity), and the impact of the MindUP program (e.g., to what extent do you feel the MindUP program was beneficial for your students?). The survey collected both quantitative and qualitative data on implementation, program modifications, and overall satisfaction with the MindUP program using three question formats; Likert-style questions (e.g., To what extent did the online MindUP training webinars prepare you to implement the MindUP program?), close-ended questions (e.g., How many children were enrolled in the class?) and open-ended questions (e.g., Did you observe

specific benefits or changes in students as a result of implementing the MindUP program during the pandemic? If so, please provide an example here).

### ***Focus Group Questions***

Educators also had the option to participate in an online focus group. Eight semi-structured questions (see Appendix E) were created by the research team to better understand educators' experiences with and perspectives of implementing MindUP during the COVID-19 pandemic. The questions were designed to facilitate discussion concerning the implementation successes and challenges, program effectiveness and acceptability, and program modifications and adaptations in the pandemic context.

### **Procedure**

#### ***MindUP Modifications and Satisfaction Survey***

The Modification and Satisfaction Survey was administered using the online survey software Qualtrics. After providing consent to participate in the research, educators who choose to complete the survey were redirected to the survey itself. Participants were provided with a 20-dollar gift card as compensation for their time and effort.

**Focus groups.** Participants who indicated that they were willing to participate in the online focus group sessions were contacted by a member of the research team via email to coordinate a focus group time. Focus groups or individual interviews were conducted online using Zoom. The call was password-protected and facilitated by myself or another member of the CSMH team. Each focus group/interview session lasted between 30 and 60 minutes, depending on the number of participants in each session. Focus groups/interview sessions were recorded and transcribed using the Zoom platform. As compensation for time and effort, participants received a 20-dollar gift card. Transcription files from the Zoom platform were

exported into a Microsoft Word document; Zoom recordings of the focus group session were used to review and revise the auto-generated transcripts to ensure accuracy. Transcripts were edited for clarity and to remove repeated words.

## **Data Analysis**

### ***Qualitative Analysis***

Qualitative data from both the focus group sessions and the survey were analyzed using Braun and Clarke's (2006, 2012, 2021) six-step method for conducting reflexive thematic analysis. Reflexive thematic analysis recognizes the active role that the researcher plays when engaging with the data and identifying meaningful patterns within a data set. An overview of the six phases used to conduct thematic analysis is provided in Table 3. Thematic analysis is an analytic approach for finding, organizing, analyzing, and describing patterns or themes within a data set. As outlined by Braun & Clarke (2006, 2012, 2021), while these six phases are critical to the analysis, the process is not linear but rather recursive in nature. In this manner, each phase within the thematic analysis underwent a series of revisions and was revisited multiple times throughout the analysis, steps that involved generating and reviewing codes and themes.

Prior to beginning a thematic analysis, it is critical for a researcher to address the underlying theoretical assumptions of qualitative research and, more specifically, reflexive thematic analysis (Bryne, 2021). I used an inductive semantic approach to analysis. An inductive approach to analysis means that the content of the data set drives the process of generating codes and themes. That is, the data were not coded based on a pre-existing coding scheme. Although the multi-level conceptual framework for implementation by Domitrovich et al. (2008) was used as a tool to aid in the conceptualization of how the COVID-19 pandemic could potentially exert an influence on implementation of the MindUP program, the data were not coded based on this

framework given the novelty of the pandemic. Further, transcribed data from the focus group and survey were coded based on explicit meaning; that is, semantic codes were used to capture what the participant was intentionally communicating. This decision was made based on the overarching goal of the study, to understand educators' experiences with implementing MindUP with the hopes of being able to highlight strategies and recommendations to ensure future success and sustainment of program.

**Table 4**

*Braun & Clarke's (2006, 2012) Six-phase Guidelines for Thematic Analysis*

Phase	Description
1. Familiarizing yourself with the data	Becoming familiar with the data corpus through transcription, reading and re-reading of the transcripts and making note of initial impressions.
2. Generating initial codes	Coding interesting features of the data set systematically.
3. Searching for themes	Engaging with the codes to find patterns within the data set. Organizing the codes and relevant data into potential themes.
4. Reviewing themes	Reviewing and revising candidate themes. Reflecting upon whether themes are a meaningful and accurate representation of the codes and data.
5. Defining and naming themes	Continuous revision of candidate themes and sub-themes. Generating clear definitions (i.e., boundaries) for each theme and sub-theme. Developing clear and concise names for each theme.
6. Producing the report	Building a narrative and telling the story of the data by producing a final report. Selecting data extracts that are relevant and meaningful.

**Phase 1: Familiarizing Yourself with the Data.** The first phase of conducting a thematic analysis begins by becoming familiar with the data (Braun & Clarke, 2006, 2012). Given that I conducted many of the focus group sessions, this was one way that I became familiar with the data. After all focus groups were conducted, I transcribed the data by rewatching the interviews and re-reading the transcripts. I listened to each interview once before beginning the transcription process and began to make initial notes on patterns or interesting features and initial impressions. After transcription occurred, the transcripts were transferred to Microsoft Word for organization, where they were re-read once again before I began the coding process.

With respect to the survey data, after reviewing the surveys, I created a Microsoft Word document to organize and store qualitative data from the survey. All qualitative responses from the survey were pulled and organized by question and participant. The process of organization aided in my familiarization with the survey data. Finally, once compiled into one document, I re-read all the qualitative survey data and noted my initial impressions and interesting features of the data.

**Phase 2: Generating Initial Codes.** The second phase of Braun & Clarke's guidelines for thematic analysis involves formulating initial codes (Braun & Clarke, 2006, 2012). Codes are conceptualized as building blocks that eventually form themes (Byrne, 2022). Generating initial codes was an iterative process. First, I began by coding all data (i.e., focus group transcripts and qualitative survey data) in Microsoft Word using the comments feature while keeping my research questions in mind and coding all data that were relevant in addressing the research questions. Next, all data were recoded using Microsoft Word for the second time. During the second round of coding, I removed redundant codes and condensed codes. Additionally, as new

codes emerged, I revisited transcripts to ensure the maintenance of a consistent coding scheme. Next, I uploaded all transcripts to Dedoose (V.9.0.46) to facilitate the third round of coding. Dedoose is a mixed-methods analysis software that was used to facilitate the organization and analysis of qualitative data. This round of coding provided the opportunity to reflect on the fit of the codes for the data, code definitions, and code boundaries. In the final and fourth round of coding, I organized codes using the 'root code' and 'child code' features contained within Dedoose. This helped to organize related codes and helped to facilitate the identification of patterns and relations among the codes.

As a tool to track the evolution of codes, I created a codebook (See Appendix F). The codebook contains the code name, a description, and an example of the final set of codes generated in round four of coding and used in the subsequent analysis. It is important to acknowledge that Braun & Clarke (2019) make an important distinction between their approach to reflective thematic analysis and other similar qualitative methodologies. Critically, they make the distinction that their reflexive approach to thematic analysis is often misunderstood for codebook methods which often have pre-defined codes and themes. The codebook that I created and used in this analysis was used as a tool for organization, tracking, and transparency (Byrne, 2022). This approach is in alignment with Braun & Clarke's (2006, 2012, 2021) method for thematic analysis because generated codes based on my understanding and interpretation of the data. The codebook also facilitated transparency as it was used as a tool for review and idea-checking with my supervisor (Byrne, 2022).

**Phase 3: Searching for Themes.** The third phase of thematic analysis involved engaging with the coded data to identify patterns (i.e., themes) within the data set (Braun & Clarke, 2006, 2012). I reviewed the coded data and systematically searched for patterns of meaning by



identifying and grouping related codes (See appendix G for initial grouping of codes). This phase also involved the collapsing of similar codes into a singular code grouping. I also created several thematic maps to help conceptualize the relationship between themes and sub-themes (See Appendix H for examples of initial thematic map).

**Phase 4: Reviewing Themes.** Phase four of reflexive thematic analysis involved a review of the themes derived during phase 3 of the analysis (Braun & Clarke, 2006, 2012). During this phase, I examined the thematic maps and reviewed and revised the themes by considering them in relation to the themes and sub-themes (Braun & Clarke, 2006). Additionally, I used the questions for reviewing themes provided by Braun & Clarke (2012). These include considering whether themes developed in previous phases are better conceptualized as codes, considering the usefulness of the theme in relation to the study's research questions, considering the definitions (i.e., boundaries) of a theme, and finally examining the data in relation to the theme to ensure that there is enough data to support the pattern as a theme. I detailed my decision-making process during this phase through making notes.

**Phase 5: Defining and Naming Themes.** Phase five involved generating meaningful definitions for each theme and sub-theme. During this phase, I reviewed the data set (i.e., transcripts and qualitative survey data) to identify potential extracts to use for writing the final report (phase 6 of thematic analysis). This process also helped to facilitate the creation of concise definitions. Finally, I created working names for each of the themes, ensuring that they were clear and concise, and informative (Byrne, 2022).

**Phase 6: Producing the Final Report.** In the final phase, I produced the narrative report and final thematic maps (See appendix H). During this phase, one important consideration and decision was to decide the order of presentation for the final themes. Braun & Clarke (2012)

emphasize the importance of building a narrative that is logical and meaningful, whereby each theme presented builds on the previous theme. The final set of themes are presented in the results section below.

### ***Quantitative Analysis***

Data from the Modifications and Satisfaction survey was analyzed using SPSS to examine descriptive statistics. Quantitative data in this study served to supplement qualitative data from the focus groups and survey. Frequency counts and multiple response sets were used to examine the most used MindUP teaching and supplementary materials, overall satisfaction with MindUP, difficulties with implementing MindUP, modifications made to the program, and perceived impact of the program in the context of the COVID-19 pandemic. The quantitative data were less detailed and nuanced than the qualitative data but serve as a useful additional source of information from a larger number of participants. Quantitative data are presented through the results where they are relevant to the qualitative themes being discussed.

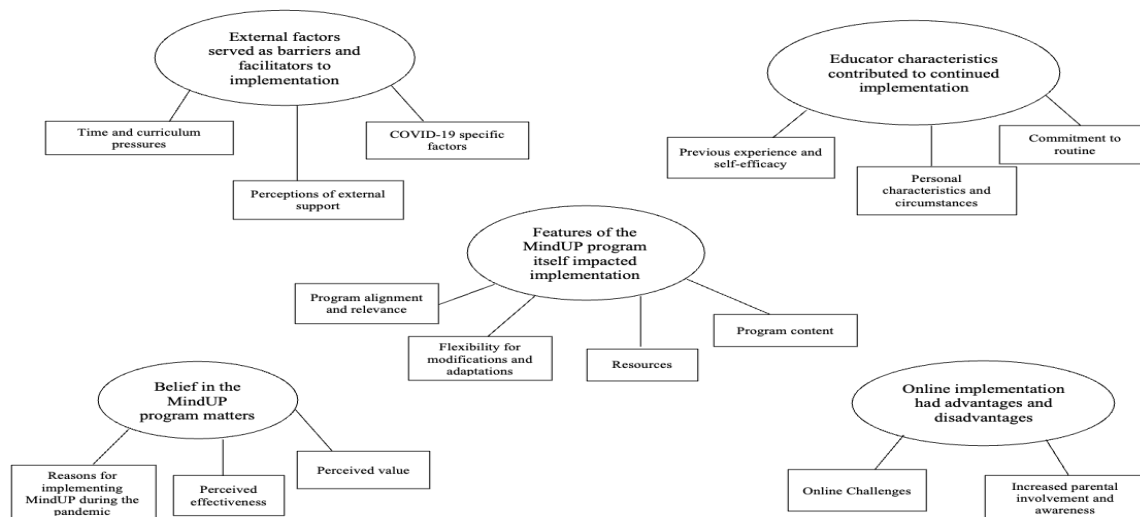
### **Trustworthiness**

Trustworthiness is imperative when conducting qualitative research (Shenton, 2004). Several steps were taken to achieve trustworthiness and to ensure that the data presented is credible, dependable, and confirmable. One important method to ensure that data is credible is to use well-established research methods (Shenton, 2004). With respect to mindfulness interventions in general, it has been suggested that a mixed-methods approach allows for the investigation of critical factors related to implementation while also obtaining detailed accounts of participants' perspectives and experiences (e.g., focus groups, interviews; Emerson et al., 2020; Zenner et al., 2014). The current study used a mixed-method methodology established within the field of implementation research, further enhancing credibility.

Triangulation is another important step necessary to achieve trustworthiness and ensure credibility and confirmability (Shenton, 2004). Given the mixed-method design of the current study, data from the MindUP Modifications and Satisfaction survey were used to help triangulate the data obtained during the focus groups. Additionally, on-the-spot member checking was conducted by focus group facilitators to ensure that the researcher's interpretation of participant experiences and statements was correct. Further, I kept a detailed journal, also referred to as an audit trail to make note of initial impressions and ideas and keep track of my decision-making process. Keeping a detailed record of decisions made throughout the analysis of the data is an important step outlined by Braun & Clarke (2006). Additional steps to achieve trustworthiness and limit bias included the opportunity for peer-scrutiny (e.g., presentations) of the project and frequent communication with supervisors (Shenton, 2004).

## **Results**

Upon analyzing the data using the six phases outlined by Braun & Clarke (2006, 2012), five major themes, each containing subthemes, were identified. Each of the five themes and subthemes contain information about educators' experience implementing MindUP during the COVID-19 pandemic and factors that have influenced the implementation process. The five themes are: External factors served as barriers and facilitators to implementation, features of the MindUP program itself impacted implementation, online implementation had advantages and disadvantages, educator characteristics contributed to continued implementation, and belief in the MindUP program matters. Figure 3 presents the finalized thematic map. These themes represent overarching patterns across the data set that were commonly referenced during focus group interviews and qualitative items from the MindUP Modifications and Implementation Survey. The themes are supported by quantitative survey data.

**Figure 3***Final Thematic Map***Theme 1: External Factors Served as Barriers and Facilitators to Implementation**

Participants frequently mentioned external factors that influenced their implementation experience during the pandemic. In the context of the current study, this theme highlights external factors that surround the implementation experience and include events and external pressures that are separate from the individual (i.e., educator, student) and the MindUP program itself. Participants provided rich accounts of the many external factors that centered around time constraints and curriculum pressures, perceptions of support, as well as factors directly related to policies and regulations and the effects of COVID-19. It is important to note that in the current study, the COVID-19 pandemic is an overarching influence that is central to each of the five resulting themes. The sub-theme of COVID-19 specific factors does not serve as a category to capture all COVID-19 related influences; instead, it captures ideas and comments related to the impact of COVID-19 policies and increased responsibility placed on educators.

### Time and Curriculum Pressures

Time and curriculum pressures are commonly mentioned barriers to implementation of school-based SEL programs (Domitrovich et al., 2008; Dowling & Barry, 2019; Durlak & Dupree, 2008). Participants frequently mentioned the impact of time constraints on implementation of the program, especially within the context of online learning during the pandemic. Results from Dedoose indicate that the external factor of time was coded for 21 times across the data set. According to participants, learning time was reduced during online sessions; some participants noted that while they were learning online, the way that schools organized their time during online learning often meant a reduction in time spent together during the day. For example, some classes only met online for one hour each day. This reduction in time spent together translated to difficulty in fitting the MindUP program in its entirety into the school day, and this resulted in spending less time on the program. Quantitative survey findings aligned with focus group data on the impact of time as a difficulty experienced by educators, time was the second most frequently indicated challenge reported by survey participants (Table 5 presents a full overview of frequency of difficulties reported by survey participants).

Although time was one of the most frequently mentioned implementation challenges in both focus group sessions and survey responses, a small number of educators reported that organizational features of the school created more time for implementation, *“For us, we were able to make it happen because we switched to balanced day and we found that we had more time than we were used to”* (Focus Group Participant 03).

In comparison to non-pandemic years, one teacher commented, *“I know that even when I was teaching kindergarten in a non-pandemic year, I found I had more opportunities to be teaching MindUP on a regular basis. Just more chance throughout the day”* (Focus Group

Participant 11). Although many teachers recognized the importance of the MindUP program, the time constraints experienced by educators still exerted an impact on their ability to implement the program fully.

*I got through half of the lessons, but it was one of those things that I just couldn't fit in, and as important as it is, to be honest with you, you're just flying by your seat, even though you're organized, you're just trying to meet everybody's needs. So that is the real reason why, its time. There's just not enough [time] to get it all finished (Focus Group Participant 17)*

Participants also mentioned curriculum expectations and pressure as external factors influencing implementation. Dedoose indicated that the code curriculum expectations was coded 22 times across focus group data and qualitative survey data. In terms of quantitative survey data, prioritizing curriculum expectations was the most frequently reported challenge (60.3%). Several educators shared their experience of having to balance MindUP delivery with meeting the curriculum expectations, *"There is always a push and feeling of pressure to focus on literacy and math"* (Survey Participant 15). Three participants specifically named the pressure of a new math curriculum adding an additional source of stress related to curriculum expectations. Another educator voiced similar concerns regarding curriculum expectations but with the perspective of teaching at the secondary level, *"I think to be honest with you, for grade six and seven it's just a little different with the curriculum"* (Focus Group Participant 17). Conversely, another participant held the perspective that while curriculum pressures exist, focusing on social-emotional wellness during a stressful time is critical.

*Regardless of the pressures to meet the curriculum at this time, I think, that during a pandemic or any sort of stressful period, we have to put aside the pressure of literacy and numeracy on the curriculum, and to focus on the children and what they need during this time...Then I think the academics, the academics can come later. But, children will not learn if they are not in a position mentally, physically, and emotionally, and so this program helps to get them into the space so that their minds can work, so that they can learn (Participant 16)*

**Table 5***Difficulties and Challenges Associated with Implementing MindUP During the Pandemic**Reported by Educators from the MindUP Satisfaction and Modifications Survey*

Difficulties <sup>a</sup>	N	Percent (%)
Prioritizing other curriculum expectations	35	60.3
Time	33	56.9
Technology requirements during remote learning	27	46.6
Distraction and external influences	22	37.9
Space requirements during remote learning	21	36.2
Public health regulations	20	34.5
Many children were absent	12	20.7
Activities were difficult to carry out	10	17.2
Implementation supports	5	8.6
Children resisted the activities/exercises	4	6.9
Children required extra time to discuss particular topics	3	5.2
I found some of the topics difficult to discuss with children	2	3.4
Some activities triggered distress among children	1	1.7

<sup>a</sup> Cumulative percentage does not add to 100 as item was a multiple response**Perceptions of External Support**

The perception of feeling supported during implementation efforts is an important factor for program delivery (Barrett et al., 2008; Domitrovich et al., 2008; Dowling & Barry, 2020; Merle et al., 2022). The results of the current study demonstrate the impact of support at various levels; administrator support, board support, support from colleagues, and support from university partners were all forms of support mentioned by participants. Perceptions of administrative support is one of the most widely cited factors influencing implementation in school-settings (McMahon et al., 2017; McIntosh et al., 2013; Merle et al., 2022). Administrator and board support were factors that influenced the amount of time educators felt they could allocate to MindUP implementation. While many participants reported that time constraints were a barrier to MindUP implementation, it seems that for other participants, having the support of

the school board and administrators created the space for educators to allocate time to MindUP implementation.

*I found it actually easier this year than I think I would have if I was teaching grade two in another year. Just because there was this focus on mental health, we need to be worrying about our kids' mental health and that's the message we were receiving from our principal* (Focus Group Participant 11)

Another educator reported a different perception of support from the school board, which impacted their implementation of MindUP, *“So, I just felt like our focus was supposed to be with literacy, math, and religion and so my lessons were based on that. That's was coming from the board, that's what they wanted us to focus on”* (Focus Group Participant 19).

Educators also discussed the helpfulness of more tangible forms of support from the school board. For example, numerous educators commented on the social-emotional learning initiative that the school board launched this year. With this initiative, SEL teachers from the board were available to visit classrooms and some even delivered some MindUP lessons. One educator commented that after the SEL teacher visited their classroom they were able to *“Pick up where [the SEL teacher] left off, so I developed my lessons based on that”* (Focus Group Participant 12). Overall, the results suggest that educators' perceptions of support from school administrators and the school board can act as either a barriers or facilitators to implementation depending on perception.

### ***External Factors in Combination***

While the external factors such as time, curriculum expectations, and perceptions of support are separable, the nature of implementation in the school setting is that factors are also interconnected in many ways. Dedoose facilitates the analysis of co-occurring codes and allows for examination of the influence of how a combination of external factors impacted educators' ability to implement the MindUP program during the pandemic. Time and curriculum



expectations were a set of co-occurring codes, with seven co-occurrences throughout the data set. For example, one educator noted that *“We’re only with these kids a certain amount of time during the day, and [have] to try and get all of our subjects in”* (Focus Group Participant 06), suggesting that curriculum expectations contributed to the time constraints experienced by many participants. Similarly, for another participant, a combination of external factors was the reason why they could not implement the program during the pandemic.

*I didn’t implement the program as I was learning the new normal of school during the pandemic, learning a new math curriculum, and I couldn’t add this to everything else I was working with. I found it too difficult to fit it in for my class* (Survey Participant 18)

### **COVID-19 Specific Factors**

Participants discussed the impact of several COVID-19 specific factors including, COVID-19 safety protocols and the inconsistency that resulted from shifts between online and in-person learning. In general, educators expressed that COVID-19 regulations were overwhelming and made tasks and lessons more laborious and difficult. Guidelines that required teachers to remove non-essential learning items (i.e., items that could not be cleaned easily) limited educators’ ability to incorporate calm-down corners in the classroom, *“Not being able to have my cozy corner that would be used for children to go for calming purposes was a challenge for me”* (Survey Participant 09). Similarly, 34.5% of survey participants indicated that public health regulations were a challenge associated with implementing MindUP during the pandemic. During focus group sessions, educators commented on specific COVID-19 protocols, such as having to wear a mask and physical distancing. For example, educators expressed that masks added an additional layer of challenge when delivering MindUP lessons on Mindful Tasting and Mindful Smelling. Further, considering that breathing is a core component of the MindUP

program, it is not surprising that multiple educators commented on the impact of having to wear a mask during breathing exercises.

*I guess the biggest thing was we had to be careful about deep breathing, obviously. It was funny, they [the kids] felt like if they took a deep breath in through their nose and out through their mouth, they had to pull their mask down. So, that was a bit challenging (Focus Group Participant 09)*

Educators reported a range of experiences with physical distancing guidelines whereby some educators reported that it was beneficial, and others reported that it was a challenge. For example, three educators mentioned that the space created due to physical distancing resulted in fewer distractions for students.

*I wonder in my situation if it was because the kids were spread out in the classroom a little bit more, we weren't trying to do the activities while sitting on the carpet, so they didn't have people poking. They were able to quiet themselves a lot quicker and I felt like overall doing our quieting exercises was a lot more successful in class (Focus Group Participant 01)*

Conversely, others found that physical distancing made some MindUP tasks difficult as there wasn't enough space. The different classroom arrangement this year was a factor that educators had to adapt to when delivering lessons, as some children were spaced very far apart and seated at the very back of the classroom. For some educators, the physical distancing guidelines seemed to affect their sense of classroom community.

*Not being able to sit on a carpet and have that sense of community, I don't know, it was just different when the kids were all in desks, and the desks were all spaced apart (Focus Group Participant 11)*

## **Theme 2: Features of the MindUP Program Itself Impacted Implementation During the Pandemic**

Educators discussed several features of the MindUP program as they related to implementation in the context of the COVID-19 pandemic. As such, theme two captures the degree to which features of the MindUP itself program impacted program delivery. It contains

sub-themes pertaining to program alignment and relevance given the current pandemic and successes and challenges related to MindUP resources. Further, this theme includes information regarding modifications and adaptations that were necessary during this school year, and experiences with delivering specific MindUP content (e.g., lessons, units, and activities).

### **Program Alignment and Relevance**

Educators discussed the degree to which the MindUP Program aligned with the curriculum, their teaching style, and other SEL programs that they use in their classroom. From the perspective of educators who participated in this study, the alignment of the MindUP program helped to facilitate implementation. With respect to alignment with the curriculum, teachers spoke to the fact that the MindUP program fits well with several aspects of the curriculum ranging from self-regulation outcomes to health and science outcomes.<sup>1</sup> Several teachers commented on the MindUP program's alignment with the kindergarten curriculum specifically, sharing that the overlap between aspects of the kindergarten curriculum such as the Belonging and Contributing, and Self-regulation and Well-being curriculum frames makes it easy to work on MindUP and incorporate activities throughout the day, even during the pandemic and amidst transitions to online learning.

*For kindergarten, it's not that much of a stretch because we do so much of this anyways, but it just expands our self-regulation, just really allows us to hone in on the learning expectations in our curriculum in real practical ways (Focus Group Participant 09)*

One educator commented on how the program's alignment with the curriculum contributed to their ability to begin implementing the program again after not being able to continue with specific lessons from the manual due to time constraints.

*However, we did come back to the MindUP curriculum, maybe a month ago. And just because the health unit I still had to teach was the mental health part, so I just ended up*

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<sup>1</sup> Alignment between the curriculum and the MindUP program was identified and provided to educators as an implementation strategy (For more information see Delaney et al., 2022, in press)

*taking lessons right [from MindUP] to teach that... So, when we did get to that health unit, where I was like ok well, I need to teach this health unit and it coincides perfectly, then that's when I brought MindUP back into it (Focus Group Participant 11)*

Six educators also commented on the degree to which the program aligns with their teaching philosophy. Participants discussed the idea that the MindUP program serves as an extension of their regular teaching practices.

*I just really enjoy MindUP because like I said at the beginning, it's not something extra that I do, it complements what I'm already doing so it's easy for me to incorporate it, and I really like that even if MindUP wasn't a program, I would find myself using different things in these areas as well (Focus Group Participant 19)*

The results suggest that when educators recognize how features and parts of the MindUP program are related to both the curriculum and their teaching style, it supports implementation of the program.

In addition to alignment, many participants also commented on the relevance of the MindUP during the pandemic. Educators noted that in general, the program applies to children and that this year, MindUP has created a space for conversations about the pandemic.

*Whether it's a pandemic or not, but especially during a pandemic because kids have a lot of emotions and they don't know how to express those emotions, and they have frayed ends and again, they don't know how to deal with their frustration and worries. During a pandemic, it makes it even harder (Focus Group Participant 06)*

*We had more chance to discuss our feelings this year than I think any other year just because it came up a lot, I mean, there was a lot going on. It was a heavy year... I took a lot of time with them to talk about feelings because I think it's important (Focus Group Participant 13)*

### **Flexibility for Modifications**

For participants who were able to implement MindUP to some degree (i.e., either implementing Brain Breaks and/or lessons from the manual) throughout the pandemic, modifications were necessary. Many noted the necessity of modifying some aspects of the program to respond to student needs. Overall, the results highlighted that educators were creative

and intentional about the modifications that they made in order to implement MindUP in both the in-person classroom and online setting. The types of modifications mentioned by participants fell into two categories, process modifications and resource modifications.

### ***Process Modifications***

Process modifications were conceptualized as changes in the practice of delivering MindUP. Process modifications included changes in the way the program was delivered as outlined by the MindUP manual. Given that the current sample was primarily comprised of educators who had experience with implementing MindUP, it also included changes to the way educators would typically implement the program. For participants who were able to continue implementing MindUP to some degree (i.e., either continuing with the implementation of some lessons from the manual), the idea of modifying the program by integrating the material into the school day/lesson was coded 15 times across focus group and qualitative survey responses. However, there was variation in the way that educators integrated MindUP content into their day. Multiple teachers shared their experience with not being able to continue with the implementation of specific lessons or taking breaks from specific lessons but were still able to incorporate elements of MindUP to some degree.

*So yeah, sometimes I do the lessons, but there isn't an actual week that goes by that we don't do MindUP [or] refer to it, beyond the brain breaks, we just incorporated it into what we're doing, constantly (Focus Group Participant 09)*

*Even though there was kind of an in between area where we weren't specifically doing the lessons, we were still doing your brain breaks every day, and we were still just in conversation like, okay, let's see if we can use our hippocampus to help us remember what we talked about yesterday (Focus Group Participant 11)*

Given shorter class time during online learning and pressures to meet curriculum expectations, some educators were able to continue with MindUP lessons but noted that many needed to be shortened or condensed, for example, using “*Parts of the lesson, rather than the entire thing*”

(Survey Participant 17). When asked about modifications that were necessary to make MindUP conducive to the online learning context, one educator discussed the importance of condensing lessons in order to make time.

*I'd love to see other teachers feel empowered to run the program fully, instead of being intimidated by the fact, like I don't have time, you do have time, um, the thing is you just have to condense, you have to know what the major point of the lesson is and get to it, like get to the meat and potatoes (Focus Group Participant 20)*

Quantitative survey findings converge with the focus group data in terms of most frequently reported modifications. Survey responses indicate that shortening lessons by dropping activities was the most frequently (63.3%) reported modification (Table 6 provides a complete overview of frequently reported modifications from the survey).

Another process modification that participants made during both in-person and online learning was delivering lessons outside or encouraging students to spend time outdoors during periods of online learning.

*In our schedule we would have an outdoor education component at the end of the day...which is difficult when you have online learning because it's the complete opposite. For that outdoor learning component in the afternoon, a lot of the time I would have them go on a nature walk and I'd have them looking for shapes, looking for colours (Focus Group Participant 19)*

*A couple of times, when we had the opportunity to do P.E outside, I would have my students sit in a circle and pass the breathing ball around. We all connected by following a breathing rhythm as each student took a deep breath and passed the ball to the next student. It was really lovely and peaceful (Survey Participant 58)*

Other processes that educators modified during this school year included making community connections (e.g., writing “empathy cards for health care workers” [Survey Participant 44]), increasing the number of discussion-based activities during online learning, and incorporating more individual activities to reduce the number of shared materials between students.

### ***Resource Modifications***

The second category of modifications made by educators were resource modifications, whereby educators utilized supplementary resources from other resources or modified the MindUP resource itself. The most frequent supplementary resource mentioned by educators in the current study was videos. Videos was coded 23 times across the data set, and many participants regularly used online videos to support MindUP lessons and activities. The use of supplementary resources such as videos was also reflected in the quantitative survey data, 48.1% of survey participants indicated adding supplementary resources while implementing MindUP during the pandemic. Educators reported using videos as a supplementary resource during both in-person and online learning, suggesting that videos are a helpful tool to extend MindUP concepts and engage students.

*In an in-person classroom, to supplement, I tried to make sure that it wasn't always me doing the talking, that I had other videos that would help to reinforce the idea that I was trying to get the students to understand. So, I had a lot of YouTube videos that I was able to find that were related to what we were talking about in class (Focus Group Participant 14)*

Another educator reflected on their use of videos during online learning in comparison to implementing MindUP in a non-pandemic school year.

*In terms of online, I think I'm more heavily relied on YouTube videos. Like I said, when we were doing that health unit that I pulled from MindUP online, I found a lot of YouTube videos. Just because, when I'm talking for so long, the kids' interests are going down. So that was kind of something like, let's listen to someone else and let's watch the video and so that's something I think I more heavily relied on this year. (Focus Group Participant 12)*

Additionally, participants discussed the use of additional literacy materials to support their lessons, such as online read-alouds and incorporating sensory materials, music, and mindfulness cards into the delivery of the MindUP program. Some educators also spoke of the importance of

using choice boards as a resource and tool to help implement the MindUP program during online learning without putting additional pressure on parents/guardians.

*Most weeks I would provide a choice board for families, so this was during asynchronous time, so when they weren't on live video, they'd have time where they would be working on things themselves. This choice board had three columns and each column had three different activities, one column was focused on MindUP (Focus Group Participant 19)*

**Table 6**

*Modifications Reported by Educators from the MindUP Satisfaction and Modifications Survey*

Modifications <sup>a</sup>	<i>N</i>	Percent (%)
Shortened lessons/sessions by dropping activities	33	63.5
Added supplementary resources (e.g., videos, books)	25	48.1
Shortened program by dropping lessons/sessions	24	46.2
Omitted lessons/sessions	22	42.3
Altered activities to fit public health guidelines	19	36.5
Increased time to discuss certain topics	7	13.5
Added new topics	6	11.5

<sup>a</sup> Cumulative percentage does not add to 100 as item was a multiple response

### ***Resources***

Participants commented on their experience with the MindUP manual itself and reflected on the ways in which the manual facilitated or acted as a barrier to implementation of the program during the pandemic. Most participants reported that the manual was useful and easy to follow and “*very easy to adapt*” (Focus Group Participant 09) to online learning contexts, to meet the needs of students, and account for public health restrictions. When asked what advice they would give to a colleague looking to implement MindUP in the future, one educator commented on the usefulness of the manual.

*We used a lot of the book ideas; it was going back to really getting out there and smelling things or we would have very hands on [activities] and it was more effective than the SMART board lessons. So, If I were to give advice, I would say use the book. There are some great stories that are linked to each of the lessons and for the young ones [make it] obviously, as hands on as possible. So, the book. The book is an amazing resource”* (Focus Group Participant 03)



While most participants reported that the MindUP manual was a helpful resource that served as an implementation facilitator, one participant shared a different experience. Interestingly, this was an educator who received online MindUP training and was implementing MindUP for the first time in an entirely online classroom. This educator reported that the MindUP manual was one of the biggest implementation challenges in the context of online learning.

*This [the MindUP manual] being a physical document made it very difficult, well not difficult, time consuming for me when I wanted to upload content to my online classroom. I also have a student who is asynchronous meaning she's not part of the class. And so, I'll pretty much put my whole lesson plan in the content because her parents are guiding her through rather than her joining our classroom. I need to put my learning goal and my explanation for the lesson into my content...I usually either sit and read the book and kind of type out what I want, or I dictate to myself on my phone and send myself an email and then copy and paste it there. If this resource was electronic, it would have made it a lot easier for me to deliver that. Even going forward to in person, I feel like there's going to be a lot more people relying on digital resources, I will be using digital resources even in person next year, if this was digital it would make things easier (Focus Group Participant 14)*

*I think my biggest, the biggest obstacle for teachers who might be looking to implement this is that I find it's a good resource, but it's not great... it's not as easy as it could be (Focus Group Participant 14)*

### ***Program Content***

Participants shared successes and challenges associated with specific lessons, activities, and general content within the MindUP curriculum. Namely, the Brain Break, the core practice of the program, were highlighted as a success of the program, as it was able to be implemented both online and in-person with ease. Educators reported being able to continue with MindUP lessons to varying degrees. For example, only one educator reported being able to implement the entire program from start to finish. Others were able to continue with some lessons during in-person learning and only continued with the practice of Brain Breaks during online sessions, “*I focused only on brain breaks and calming strategies*” (Survey Participant 14). Others were able to continue with some lessons and Brain Breaks in both an online and in-person context but

stepped away from the curriculum at times or didn't implement the MindUP program entirely. However, Brain Breaks seemed to be a consistent aspect of the MindUP program that many educators could incorporate and a practice that produced a noticeable "*sense of calm in the classroom*" (Survey Participant 14). With respect to implementing the program online, educators also shared their experiences with implementing Brain Breaks, "*Online, I found we still did the brain break, every day we started our meetings with the brain break*" (Focus Group Participant 16). Another educator mentioned that they chose to only implement Brain Breaks to incorporate MindUP while also meeting curriculum demands and time constraints during a brief shift to online learning. Further, the participant shared that their continuation with brain breaks was a factor that contributed to their ability to continue with other MindUP content and lessons once they were back learning in person.

*Well, I did continue with the brain breaks but not with the particular lessons...I felt like [for] me just putting the Brain Breaks was enough to kind of continue with that and I would hopefully be able to catch up when we came back. My feeling was that we weren't going to be remote in January for a long time so I figured it was a short period of time and the focus needed to be on literacy, math, and religion and I could just bring in the brain break or the mindfulness at the beginning of the lesson* (Focus Group Participant 18)

When asked if consistency with implementing the Brain Break was a factor in their continued implementation, the educator responded with:

*I think so, because if I had stopped completely, I may not have gone back to the program, so I think maintaining the Brain Breaks... for me, it was better to be able to continue when I went back to the classroom* (Focus Group Participant 18)

Although Brain Breaks were a successful feature of the MindUP program, educators' experiences varied with respect to success and challenges related to the content on Mindful Smelling and Mindful Tasting, optimism, and gratitude both in the classroom and the online

learning setting. In the classroom, some educators noted that they felt the Mindful Tasting activity was a challenge. For example:

*“The other thing too with the mindful tasting. I did it once with the Hershey’s kisses. I did that lesson, I found it was a little bit challenging, just because you know they had to take off their masks, they were in [a] close circle. I didn’t feel comfortable, I don’t think the kids felt comfortable” (Focus Group Participant 16)*

Conversely, other educators reported success with Mindful Tasting and Mindful Smelling activities when they were able to get creative with modification of the activities and lessons.

*So, when we did the Mindful Smelling and Mindful Tasting [normally], I would bring food in, and I would bring items to the class. Well, this year if we had been in the building, I couldn’t have done that. So, we just happened to go online so I just made a lesson right in my kitchen. I just set things up and I had things all laid out from my cupboard and I was just showing the kids things, and we had a tour of my fridge... So, actually, that worked out better than if we had done it at school, [it] would have been more sterile at school (Focus Group Participant 09)*

*Also, once we had to keep our masks on. I remember doing the Mindful smelling one. We stuck cups together and I put the smell inside so that you can see it and poke holes in the top. If you squeezed the top, there was enough smell that came out that you could smell through your mask (Focus Group Participant 03)*

### **Theme 3: Online Implementation had Advantages and Disadvantages**

Educators who were assigned to an in-person teaching role during the pandemic still had to navigate teaching in an online context when learning shifted to online due to various waves of COVID-19. The online setting was identified as a factor that influenced the implementation of the MindUP program both positively and negatively. Findings from the current study suggest that there were several challenges associated with implementing MindUP online; however, many participants were still able to incorporate some elements of the program virtually. As a result of online learning, one unintended outcome was increased parental involvement and awareness of the MindUP program, as many parents were supporting their children who were learning online.

## Online Challenges

Participants shared their experiences with challenges they faced while implementing the MindUP program online. The most frequently mentioned online challenge was distractions at home. Educators shared that the distractions at home hampered some students' ability to focus, participate, and share. In comparison to classroom delivery of the MindUP program, Survey Participant 16 shared, *"Some students participate, and some find their environments very distracting and are unable to participate as they would in the classroom"*. Similarly, another educator shared their experience with online distractions as a challenge to implementation as the level of classroom control differs between the in-person and online learning settings.

*One of the things that we found challenging, and I think limited how much we did was, you know, in the classroom you have that ability to create that calm environment, at home, they unmute, and you hear the vacuum going, and the baby crying, and we're really trying to get them to settle or focus, sometimes it's just not a possibility. So, I think those distractions deteriorated how much we were able to do with them online* (Focus Group Participant 04)

For other educators, distractions at home, combined with time constraints, contributed to their discontinued implementation *"Short times for learning sessions as well as too many distractions from home made it too difficult for me to continue"* (Survey Participant 09).

Logistical challenges with technology during online learning was also a factor that impacted program implementation. Some teachers reported that not being able to see all of the students at one time impacted the connection they were able to have with students, *"You cannot see all the students at one time [on] Microsoft Teams. It is hard to read student facial and body responses"* (Survey Participant 15). Others commented on the idea that getting students ready for online learning and troubleshooting technological problems was time-consuming in a setting where limited time was already a challenge. One participant described the cumulative effects of online challenges on their students:

*And so, they've got no peer-to-peer relationships happening. They have no physical contact, like all the things that really young children sort of need and thrive around they don't have, and all of the triggers that typically cause problems, they do have, and they have in spades. So, difficulty with their electronics not working, dropping out of meetings and coming back, having to sit still uninterrupted for 30 or 45 minutes, distractions from their brothers and sisters screaming and friends ringing the doorbell, just every manner of what could go wrong happens online (Focus Group Participant 19)*

Relatedly, educators also noted that facilitating discussion was more challenging in an online environment, stating that *"We did have students who were sharing ideas, but it was a little bit more laborious to do"* (Focus Group Participant 14). In comparison to delivering MindUP in a classroom setting, Survey Participant 22 commented, *"We didn't have the same two-way discussions and lessons with the students when online as we did when we were in the actual school"*. According to participants, the student-teacher connection online is not the same as in person, and thus, facilitating discussions online is not as organic.

While implementing MindUP in an online setting, educators reported mixed experiences concerning student engagement and focus. Survey participant 16 shared *"Implementing the program online was more of a challenge for some of the students as they were not as engaged in the meetings or activities"*. Conversely, Survey Participant 58 noted that students were *"all still fully engaged during our Monday MindUP lessons and activities"*.

Relatedly, another common pattern in the data was reduced student focus. Several educators shared that when learning online, *"trying to keep their [students] attention was challenging at times"* (Survey Participant 27). Other participants shared that young students' ability to sit still in front of a screen is limited, impacting their ability to cover some of the MindUP content and activities. Further, one participant highlighted a relationship between the time spent learning online and reduced student focus.

*At the start, when we were first online the kids were a little more focused, but we have noticed a dwindling focus. Even with our attempts of being mindful and refocusing. I*

*think it's just [that] little people are meant to learn through different experiences rather than a flat screen, so that's definitely been a challenge for us* (Focus Group Participant 03)

### **Increased Parental Involvement and Awareness**

During times when students were learning at home, many parents/guardians would support their children during online sessions. The current results suggest that learning at home resulted in parents having a greater awareness of the MindUP program and its benefits for children. Additionally, many parents had the opportunity to try out MindUP activities themselves; participants shared that they received positive parent feedback about the MindUP program during this school year and that this increased feedback was likely because parents were able to witness the benefits of MindUP firsthand during online learning. Overall, educators reported that this increased parental awareness and involvement was a successful outcome of delivering MindUP in the context of the pandemic.

*Because of virtual learning, I think parents perhaps had more awareness of the program which is undoubtedly a good thing* (Survey Participant 44)

*They would have their family participating with them, where they would show them breathing exercises and different things, so it was really neat to have the parents involved that way, to see what we do and to see why we do it as well because I don't think they necessarily would have had that if it weren't for online learning* (Focus Group Participant 20)

Participants also shared that parents would send videos of children engaging in MindUP activities outside of class time to solve problems and self-regulate. Further, multiple educators reported that they had parents share positive feedback about the value and benefits of the MindUP program.

*I've actually had parents specifically name it in interviews. The last set of interviews we had, they [the parents] talked about it to us during phone interviews, but they spoke because they saw it. They said oh, it's so useful that I can use that in my daily life. So, I think our parents really really saw the value and were on board, sort of as first person as online can be.* (Focus Group Participant 03)

**Theme 4: Educator Characteristics Contributed to Continued Implementation**

The influence of individual factors on the implementation of MindUP by educators was a notable pattern within the data. Previous literature has highlighted the potential contributions of individual factors to implementation (Domitrovich et al., 2008; Dowling & Barry, 2020; Jennings & Greenberg, 2008). Individual characteristics of educators such as experience, psychological functioning (i.e., stress, professional burnout), intervention-specific self-efficacy (knowledge of program components and comfort in delivering the intervention), and previous experience with implementing the program are all factors that have been shown to affect implementation (Domitrovich et al., 2008; Dowling & Barry, 2020; Ransford, 2008). These factors were also reflected in the current results. As such, this theme encompasses and illustrates the impact of individual factors on implementation of the MindUP program during the pandemic.

**Previous Experience and Self-Efficacy**

Previous experience with MindUP delivery was identified as a factor that impacted educators' ability to implement the program during the pandemic. Having previous experience meant that educators were familiar with delivering the content and had resources from previous years that could be used again this year, either online or in person. Our sample was mostly comprised of educators with previous experience, and many shared appreciation for having implemented in the program during the non-pandemic times. Focus Group participant 09 provided insight about the role of experience in implementing MindUP in the classroom and online "*Once you know the program, whether you're in school or online, I didn't find that much of a difference*". This educator also shared that having previously developed resources helped to facilitate continued implementation across delivery contexts (i.e., online or in-person).

*We were able to just keep going with it because we had developed resources, we had that understanding, and it just seemed to really work whether we are at home or at school, we're able to adapt easily* (Focus Group Participant 09)

Conversely, one educator who implemented the program for the first time shared, *“Keep in mind that I am a first-year teacher, straight out of teacher’s college, so if I teach kindergarten next year, I will have a better understanding”* (Survey Participant 18). Interestingly, this was an educator who was not able to implement MindUP in its entirety this school year, further underscoring the perceived role of experience and intervention-specific self-efficacy on implementation.

### **Commitment to Routine**

Another educator characteristic that contributed to educators’ continued implementation of MindUP throughout the pandemic was educators’ commitment to ensuring that MindUP was a consistent part of their daily routine. Specifically, prioritizing routine was coded 21 times across survey and focus group data, *“I could keep MindUP fairly consistent as part of our routine virtually as it was so ingrained in our classroom experiences”* (Survey Participant 50). As previously mentioned, a core component of MindUP, the Brain Break, was able to be successfully implemented both in-person and online. Many educators commented on the importance of including Brain Breaks consistently as a part of the daily routine, commenting that they always began their day or lesson with a brain break. For example, *“I still included parts of it, like the breathing, so in our morning meeting every day whether we were in class or online, we always did breathing”* (Focus Group Participant 11). Similarly, another educator shared, *“I always felt that the Brain Break was the most important, so I was very consistent with the Brain Breaks, three times a day, and regardless of the mask”* (Focus Group Participant 16). When asked about what advice participants would share with a colleague, participants also mentioned



the importance of routine while acknowledging that it was sometimes challenging to maintain consistency.

*Maybe make sure they are in a regular routine of doing it. I found that for whatever reason [if] we couldn't do it a certain week, they forget. They're young and I found that when we did it regularly, they remember things and they use those strategies and [it] is a lot easier to keep going when we were doing it regularly, which of course was a little tougher this year (Focus Group Participant 05)*

### **Personal Characteristics and Circumstances**

Educators' personal characteristics and individual circumstances impacted the degree to which they were able to implement MindUP during the pandemic. Specifically, educators' well-being, including feelings of being overwhelmed, was a factor that contributed to their ability to implement the program during the pandemic. Inconsistency and the feeling overwhelmed with increased responsibilities was mentioned by three participants as a reason that they could not implement MindUP. One participant who only implemented brain breaks during the pandemic shared *"I was so overwhelmed with a new classroom, the pandemic, I had to move all of my stuff [because] my building was under construction"* (Focus Group Participant 08). Conversely, another educator reflected on their personal characteristics and how they related to implementing MindUP in its entirety.

*So, I just decided to go with it. And I just, I'm not a halfway person, I'm either going to do it or not, so I committed to myself that I was just going to do it. We're going full throttle and if I have to adjust an activity a little bit or whatever, I will, but we're following it. I'm glad I made that decision (Focus Group Participant 20)*

Because this educator decided to commit to the program fully they *"Ran the program start to finish... everyday, every lesson, every aspect of what I could pull from it, I pulled from it"* (Focus Group Participant 20).

**Theme 5: Belief in the MindUP Program Matters**

The perceptions and attitudes that an educator holds about an intervention have the potential to influence implementation quality and processes (Domitrovich et al., 2008). The current results highlight that educators' perceptions and attitudes about MindUP are related to their motivations or reasons for implementing the program during the pandemic. This theme captures educators' beliefs, attitudes, and perceptions about the effectiveness of MindUP program. Many implementation frameworks conceptualize educator attitudes and perceptions as educator factors, including Domitrovich et al.'s (2008) Multi-Level Implementation Framework. Educator attitudes and perceptions are presented here as a separate theme, *Belief in the MindUP Program* as I did not use a pre-defined coding or thematic framework. In this regard, educator beliefs, attitudes, and perceptions presented in the current theme can be differentiated from educator factors presented in the previous theme (i.e., Theme 4: individual factors) as educator factors are conceptualized as characteristics (e.g., previous experience, overwhelm, and implementation strategies) and are considered separable from the beliefs, attitudes, and perceptions educators hold about the intervention itself.

Overall, most educators discussed the benefits and value of the MindUP program, especially in the context of the pandemic. Overall, quantitative survey data suggests that implementing the MindUP program was a positive experience for educators with most educators (76.6%) reporting that implementing MindUP during the pandemic was “*very much*” or “*somewhat*” a positive experience. Educators who participated in focus groups shared their reasoning for using MindUP as a tool to support student wellness and social-emotional learning during the pandemic and their perceptions related to the value of the program. The idea of using MindUP as a tool for supporting students during stressful times was also reflected in the

quantitative survey, 76.3% of participants indicated that they would recommend that a colleague implement MindUP during stressful times. Over half (52.2%) of survey participants indicated that the program was “*very much*” suitable for use in the context of the pandemic. Both focus group and survey data suggested that even though educators were not always able to implement the MindUP program as intended during the pandemic, it still had widespread benefits for both students and educators.

### **Reasons for implementing MindUP during the Pandemic**

Participants shared their motivation for beginning implementation of the MindUP program during a period of uncertainty. Educators’ motivations for implementation fell into two overarching categories: supporting student wellness and supporting transitions. To some degree, all educators mentioned that they felt the need to support student wellness during the pandemic; this ranged from intentions to helping students cope with increased stress and anxiety surrounding the pandemic, supporting academics, creating safe classroom spaces, and prioritizing social-emotional learning. Three educators commented on the link between student academic success and social-emotional wellness and shared that MindUP provided an opportunity to help students with both areas.

*There’s a direct correlation between how a student can succeed and their mental state. If a student is really struggling to regulate their emotions, then it will be very difficult to focus on a challenging task. So, I saw it as trying to help out the students but also hopefully having an impact on their academic success as well (Focus Group Participant 14)*

When reflecting on reasons for continued implementation of MindUP, one participant shared about the importance of creating safe spaces.

*Their [parents’] job has changed, situations at home have changed, and through MindUP it was always a really good, safe, time and place for the students to share what they’re feeling. So, I felt like it was a little bit easier to get the students talking about*

*what they're going through and how they're feeling right now (Focus Group Participant 05)*

Eleven focus group participants discussed the impact of pandemic-related stress and uncertainty on the daily life and schedule of students and shared that implementing MindUP provided students with strategies to help work through such challenging times.

*I thought this was the perfect year, I mean, I would have done it regardless because I think there's always anxiety or issues that come up in life. But this was the perfect year because we were constantly being thrown to online and back to class. And now we can't use the gym, and so on. And the kids were having to adapt to all of these changes with little to no notice. I thought implementing the MindUP strategies as a class [was] helpful, I thought it was great, it was perfect (Focus Group Participant 13)*

### **Perceived Value**

Overall, the results demonstrate that most educators found the MindUP program to be worthwhile and very valuable in the context of the pandemic. Although some participants were unable to implement the program in its entirety due to challenges associated with the pandemic, participants still found the program to be valuable.

*Even if you take little pieces, you're still teaching them something that's valuable. And even if you don't get totally through the whole thing, you have still taught them something that I think is really valuable (Focus Group Participant 08)*

Four participants commented on the value of the MindUP program as we move forward and begin to recover from the pandemic. Survey Participant 41 shared, *"I think that this program will be hugely important when we return to in-person learning"*. Relatedly, another educator highlighted that the MindUP program might be especially valuable for students entering kindergarten next year, given their tumultuous pre-school years.

*[MindUP] this year and next year [is] going to be really important. The kids haven't been socialized really, they haven't had the opportunity to visit with other kids, or even play with anyone but people in their family... so, it might be even more important to focus more on MindUP in the beginning, and take other curricula and aspects of curriculum a little bit slower in kindergarten, and do the exercise in MindUP to help them be social, practice kindness, and you know, how to play, and empathy (Focus Group Participant 12)*

Overall, it appears that participants find the MindUP program to be a valuable program to use in the classroom and in the context of the pandemic. Several educators shared praise about the program's value, for example: *"I absolutely love the program. I think it's phenomenal and I honestly truly feel like every teacher needs to be trained. It has to start early"* (Focus Group Participant 06). This sentiment was echoed by other educators as well, program praise (i.e., educators mentioning that they loved or enjoyed MindUP) was coded for a total of 30 times across the data set.

### **Perceived Effectiveness**

Educators shared their perceptions of noticeable benefits and positive impacts from implementing the MindUP program during the pandemic. With respect to observed benefits in the classroom, one educator noted that *"The strategies taught in MindUP were directly related and really helpful"* (Survey Participant 43), *"MindUP helped to ease some tensions and create a more calm and comfortable learning environment"* (Survey Participant 13). Although the pandemic was a time of unprecedented uncertainty for educators and students, educators were still able to recognize the effectiveness of the MindUP program and identify benefits.

*It was interesting that even though the circumstances weren't as good, and you had to really modify some of the lessons that you were giving, it did have an impact. And I do believe it helped them with their calming strategies, so even when we were online I had some students with some high anxiety and we would pull back to that. So, even though I didn't get through it [all] and you know, there was some challenges, I really do truly believe in the benefit of the time spent to do it, and they're learning how to use those techniques. It was really helpful* (Focus Group Participant 17)

Numerous other participants shared that although implementation was associated with some additional challenges related to the pandemic, the MindUP program was still beneficial, and most students enjoyed and participated in the program.

*For me, what was significant was the way the students responded to it, they were in grade six, but they loved it. They loved the way they were feeling, they loved the meditation, they loved the visualization we were doing. It made a tremendous difference when they came in from recess to calm everyone down or for example if I had a lesson that they sat for a long time and they started to get fidgety, we'd get up and do some MindUP activities, standing up and moving, the impact was very significant. I feel like the students are going to take away some of the things that we did and integrate them in their personal lives, it's honestly super successful, I love it (Focus Group Participant 07)*

*It was incredible to see the change that it made in these children, we didn't even start until the last week of September ... and by the first week of November, so we're talking not even a month and a half in, kids in our classroom were sitting still, they were making direct eye contact, they were using MindUP language like I'm having trouble right now, my amygdala is on fire, they were telling each other, it's okay take a deep breath. Things I couldn't imagine and believe could happen virtually were happening (Focus Group Participant 19)*

Moreover, quantitative survey findings support the notion that, overall, most students were still able to participate and engage with MindUP activities and lessons during the pandemic, 50% of educators reported that students “somewhat participated” and 38.6% reported that students “*very much participated*” in the program.

Across focus group sessions and qualitative survey responses, educators referred to several other specific benefits of the MindUP program that they noticed among students; positive benefits in students were coded for 36 times. For example, success with calming strategies, and breathing techniques, improvements in awareness and recognizing emotions, improved focus, and the use of MindUP language. In addition to noticing these benefits during the school day or during online learning sessions, educators also commented on the transfer of MindUP skills that they observed. For example, students using MindUP strategies independently during the school day or while at home when they were feeling overwhelmed or were faced with a challenging situation. “*Several students would remind me to use breathing strategies when I was faced with technical computer issues*” (Survey Participant 34). Quantitative survey data converged with focus group findings with respect to benefits for students, 91.7% of survey participants reported

that the MindUP program was either “*somewhat*” or “*very much*” beneficial to students during the COVID-19 pandemic.

In terms of benefits specific to the COVID-19 pandemic, four educators explicitly mentioned that they felt students benefited greatly from the MindUP program because this was a time associated with a lot of loss in other areas of their life, “*I think it helped in dealing with those negative emotions surrounding things that we had lost and were not able to do anymore*” (Survey Participant 14).

*I think that, out of all the years that I’ve done it, I think this was probably the year they got the most from it... I really honestly feel like these kids needed to move, they needed time to relax [during] such a high, they feel the stress, they know something’s going on with the masks, you know, socially distancing [and] that piece of it. Every year I’ve done it the kids love it, but I really feel like the kids this year really took a lot away because so much was taken away from them to begin with* (Focus Group Participant 06)

Further, the results indicated that the MindUP program was effective in supporting transitions between in-person and online learning as well as general transitions throughout the school day.

*When our class transitioned to remote learning at multiple times throughout the year due to COVID outbreaks at our school or government ordered school closures, our class continued with these Brain Breaks, even online. We would begin every afternoon’s synchronous session listening to the chime and working on our breathing. It’s been great to see our students easily make this transition to their home learning environment* (Survey Participant 28)

In addition to observed benefits for students, educators also reflected and shared about the benefits of MindUP for themselves, “*The Brain Breaks were consistently used when in school and in our online meetings, it helped me significantly*”, “*I just think it grounds them, and it grounds me, and we’re all connected to the same thing*” (Focus Group Participant 17). With respect to the current context of the COVID-19 pandemic, one educator shared:

*And also, for me, I see how it benefits me, where you know, the year is so unpredictable, or we were told we could do something one day and then literally, a few hours later we*

*were told we couldn't, but then by the end of the school day we could still do it, and just being in all of this uncertainty as an educator as a leader in my classroom having some little [MindUP] strategies for myself as well just knowing that when I would be heightened or what I would need to do in order to be more focused and more aware and with my students, I think that really helped me as well, knowing that it was crazy around me but there were things I could still be in control of and that I was aware of that (Focus Group Participant 20)*

Overall, the results highlighted that the MindUP program was associated with numerous benefits for both students and educators, even though the circumstances surrounding the pandemic were not ideal.

### **Discussion**

This study aimed to explore educators' experiences with implementing the MindUP program during the COVID-19 pandemic to identify factors that impacted implementation processes, successes and challenges, program modifications, and understand educators decision-making processes associated with implementing MindUP during the pandemic. Research from early in the pandemic illustrated the importance of SEL programs as a COVID-19 remediation strategy (Hamoda et al., 2021; Magson et al., 2021; Schwartz et al., 2021; Pressley, 2021). While there is robust evidence demonstrating the effectiveness of school-based SEL programs, investigations of factors that contribute to implementation in schools are limited. Moreover, the COVID-19 pandemic has added a layer of challenge and uncertainty to the implementation of school-based SEL programs like MindUP. The results from this study shed light on the range of difficult circumstances and uncertainty faced by educators who delivered MindUP during the pandemic. However, while there were undoubtedly challenges associated with implementation, educators shared that the benefits of the MindUP program outweighed these challenges.

Overall, educators who were able to implement MindUP in some capacity found the program beneficial, relevant, and helpful to deliver in the context of the pandemic. Previous



literature has elucidated the wide array of benefits of MindUP for both students and educators (de Carvahlo et al., 2017; Crooks et al., 2020; Kim et al., 2021; Maloney et al. 2015; Schonert-Reichl et al., 2015; Schonert-Richel & Lawlor, 2010). This study provides qualitative evidence that the benefits of the MindUP program persisted throughout the pandemic. Namely, educators referenced that MindUP was beneficial for students experiencing anxiety and pandemic-related stress, provided students with tools for emotion recognition and regulation, and improved focus.

Pressley (2021) speculated about the unique stressors and demands placed on educators during the pandemic (e.g., different teaching environments and new instructional approaches). Findings from the current study demonstrate that this was a reality for many educators; however, educators were able to recognize and reflect on the benefits that the MindUP program had for themselves. This finding converges with literature from prior to the pandemic that found that the MindUP program was beneficial for educators (de Carvahlo et al., 2018; Kim et al., 2021).

While the benefits of the MindUP program are clear, there is still a necessity to better understand the factors that affect implementation processes to identify implementation supports, make recommendations for the future, and ultimately ensure the sustainability of MindUP. The five overarching themes identified in the current study (i.e., External factors served as barriers and facilitators to implementation, features of the MindUP program itself impacted implementation, educator characteristics contributed to continued implementation, online implementation had advantages and disadvantages, and belief in the MindUP program matters) can be applied to Domitrovich et al.'s (2008) multi-level implementation framework to identify and examine factors that affected macro-, school-, and individual- levels of implementation during the pandemic.

### **The Fit of the Multi-level Implementation Framework**

Implementation science frameworks are not a one-size-fits-all solution to understanding implementation. As such, there are benefits and shortcomings of using an implementation framework to understand implementation processes in school settings, especially in the context of the COVID-19 pandemic. The multi-level implementation framework proposed by Domitrovich et al. (2008) was a valuable tool for conceptualizing the many ways that the pandemic might influence the delivery of the MindUP program. Several factors that impacted implementation in the current study aligned with the multi-level framework for implementation, demonstrating its usefulness beyond the conceptualization of the potential impact of the pandemic and extending it to the interpretation of the results.

At the macro-level, COVID-19 policies such as masks and physical distancing were factors that broadly impacted the implementation of MindUP. While some educators shared that physical distancing resulted in fewer distractions for their students, the consensus was that educators found that COVID-19 regulations and policies acted as a barrier to implementation that made some MindUP activities challenging to implement. According to the multi-level implementation framework, factors exerting an influence at one level can have a cascading effect on factors situated at other levels of the framework. In this case, masking and physical distancing guidelines affected educators' perception of classroom climate and culture (i.e., a factor situated at the school-level), as the policies affected the sense of classroom community and connection they felt with their students. One macro-level factor that positively contributed to MindUP implementation was the availability of SEL teachers and school social workers who helped to support educators in their implementation throughout the pandemic.

At the school-level, the way that schools organized their learning time during both virtual and in-person learning impacted the amount of time educators allocated to MindUP implementation. Relatedly, administrative leadership has been found to be a key contributor to implementation quality (Domitrovich et al., 2008; Durlak & Dupree, 2008; Merle et al., 2022; McMahon et al., 2017; Ransford et al., 2008). Specifically, educators' perceptions of administrative support are a key predictor of the sustainability of evidence-based programs in schools (McIntosh et al., 2013). The essential role of educators' perceptions of administrative and board support was reflected in the current results. When educators felt that their administrators and school boards were emphasizing SEL during the pandemic, it reduced the pressure of competing curriculum demands and thus, educators felt they could spend more time on MindUP implementation. A recent qualitative investigation of factors affecting the delivery of another mindfulness-based SEL program emphasized the role of support from board and school administration (Mischenko et al., 2022). Specifically, their results highlighted the facilitating role of heightened relational trust and integrity among teachers implementing the program and administration and school-board personnel. Most participants in Mischenko et al.'s (2022) study mentioned administrators acting as a barrier to implementation via the undermining of relational trust. Conversely, most participants in this study spoke of educators and the school board as a facilitator of implementation. However, a small number of educators perceived that the school board and their administration were placing emphasis on attaining complete coverage of the curriculum during the pandemic and this impacted the amount of the MindUP program that they covered. Other important school-level factors were the availability of resources, particularly literacy resources from the school library and the support of colleagues.

Individual-level factors within the multi-level implementation framework have been shown to be critical contributors to the implementation of school-based prevention programs and have been identified as factors that are the most predictive of successful implementation (Audrey et al., 2008; Dowling & Barry, 2020; Locke et al., 2019). Individual-level factors were some of the most important and frequently mentioned factors that affected implementation in the current study. For the most part, educators considered individual factors to be facilitators of MindUP implementation, for example, the program's alignment with their teaching style, previous experience and self-efficacy, and professional characteristics (i.e., commitment to routine implementation). However, given the increased demands placed on educators during the pandemic, educator well-being, specifically feeling overwhelmed, was one individual-level factor that acted as an implementation barrier. For most participants, however, the individual-level factors of perceived value and effectiveness and a general belief in the MindUP were essential factors that influenced implementation during the pandemic. Educators saw clear benefits and positive change within their students, which promoted continued implementation.

Several factors that were key contributors to implementation in this study that are not addressed within Domitrovich et al.'s (2008) framework. First, characteristics of MindUP itself, such as the program manual and specific program content (e.g., Brain Breaks), were found to be factors that increased the probability educators continued implementation of MindUP during shifts to online learning. This finding is in line with other implementation models that emphasize the importance of intervention characteristics on implementation (Damschroder et al., 2009; Durlak & Dupree, 2008). Further, previous research has highlighted the role of participant factors on the implementation of programs within schools (Audrey et al., 2008; Borman et al., 2018; Dowling & Barry, 2020; Pettigrew et al., 2013). However, student factors (i.e., participant

factors) are not considered within Domitrovich et al.'s (2008) framework. Consistent with previous research by Borman et al. (2018), student engagement with MindUP during online learning was a factor that impacted whether educators continued with implementation while online.

It is unsurprising that several factors related to implementing MindUP online did not align with the multi-level implementation framework. The influence of increased parental awareness and involvement during online learning did not fit neatly within the framework. When educators felt that parents understood the purpose and value of the MindUP program and were able to see the benefits firsthand, it seemed to act as an additional form of support. Previous research has underscored the importance of engaging with families to build relational trust, promote understanding, buy-in, and encourage families to support students in extending learned skills to environments outside of school (Mischenko et al., 2022); however, prior to remote learning during the pandemic, parents were rarely co-pilots in their children's school day. Taken together, it is possible that the virtual implementation of MindUP promoted increased understanding and fostered relational trust between families and educators and this was an important factor that facilitated implementation.

## **Addressing the Research Questions**

### ***Successes, Challenges, and Modifications***

Successes and challenges can be drawn from the overarching themes presented in the results section above. Although MindUP implementation during the pandemic was challenging, one noteworthy success was that most educators found the program beneficial and helpful for both themselves and their students even amidst uncertainty and several transitions between in-person and online learning. Specifically, educators identified Brain Breaks (i.e., the core practice

of MindUP) to be overwhelmingly successful during the pandemic, and this was the aspect of MindUP that was most consistently implemented by participants throughout the pandemic. Although some lessons and activities required modifications, educators' ability to implement the MindUP program across learning contexts was one success associated with implementation during the 2020-2021 school year.

While MindUP implementation was successful during the pandemic, educators faced numerous challenges. As evidenced by focus group and survey responses, perceptions of time constraints coupled with curriculum pressure were among the most frequently mentioned challenges to implementation during the 2020-2021 school year. Additionally, most educators viewed public health regulations like masking, physical distancing, and the limiting of shared materials as a challenge. However, educators were able to make adaptations to overcome these challenges that were successful (e.g., outdoor lessons, modifications to Mindful Tasting, and Mindful Smelling). As expected, there were also several logistical challenges associated with online implementation (e.g., technology, distracting environments) that took time away from lessons and activities. Finally, while most educators could continue with some aspects of MindUP implementation during the pandemic, implementing the entire program was a challenge for many educators.

Educators were creative and intentional in their use of modifications during the pandemic. As previously discussed, modifications fell into two major categories 1) process modifications and 2) resource modifications. Some of the most frequently mentioned modifications made during the pandemic included integrating MindUP content throughout the school day and using additional resources (e.g., literacy, videos). In actuality, these are practices supported by the program developers and are not considered true modifications as willingness to

integrate evidence-based programs into the school day instead of viewing it as a separate lesson is essential for program sustainability (Riley et al., 2001). During MindUP training, educators are encouraged to look beyond the program manual and integrate MindUP into the school day. Additionally, educators modified program content to increase discussion-based activities in order to comply with public health guidelines and adapt to virtual implementation. Interestingly, educators also noted that facilitating discussion-based activities was challenging, especially during online implementation. This discrepancy illustrates an area where educators may benefit from additional implementation support and resources.

### ***Educators Decision-Making Processes***

Several factors contributed to educators' decision-making processes surrounding beginning, continuing, or discontinuing MindUP implementation during the pandemic. Most educators who chose to continue with or begin MindUP implementation during the pandemic did so because they recognized the value of SEL and wanted to prioritize SEL to provide students with strategies to navigate the stress and uncertainty associated with the pandemic. Additionally, several educators acknowledged the relation between fostering SEL competencies and promoting academic achievement, which has been identified as a remediation strategy to address the negative consequences of the pandemic (Darling-Hammond & Hyster, 2020). Moreover, previous research has highlighted the disproportionate impact of the pandemic on vulnerable children and youth (Mastern & Motti-Stefanidi, 2020). While the number of participants who implemented MindUP in entirely virtual settings was small, those that did noted that their reasons for beginning and continuing with MindUP implementation during such challenging times was to provide support for students who needed it the most. Overall, most participants began and continued with implementation with the overarching goal of supporting student wellness,

underscoring the role of educators' belief in the effectiveness and value of the MindUP program as a whole. As previously discussed, educators' perceptions of administrative and school board support were instrumental in their continued implementation. Previous experience and intervention self-efficacy were also factors that played a role in educators' decisions to continue with or begin the MindUP program during the 2020-2021 school year.

Despite the fact that many educators set out with the intention to implement MindUP in its entirety, most educators had to shorten content or omit lessons, and many were only able to implement Brain Breaks consistently. Factors that contributed to educators' decision-making processes around reducing or discontinuing MindUP implementation were time constraints and curriculum pressure. For example, many participants chose only to implement Brain Breaks (i.e., not continue with MindUP lessons from the manual) to strike a balance between delivering SEL programming and covering the curriculum. Additionally, for a small number of participants increased responsibilities during the pandemic, personal and professional circumstances (e.g., learning a new curriculum, changing schools, feeling overwhelmed) also contributed to educators' decisions to discontinue implementation.

### **Limitations and Future Directions**

The findings of the study allow for the identification of factors that affected implementation during the pandemic; however, the findings should be considered in light of several limitations. First, it is important to consider the possibility of selection bias. That is, it is possible that educators who choose to participate in this study self-selected because of their positive experience, interest, and belief in the MindUP program. Moreover, we provided educators with multiple opportunities to participate in the study (i.e., focus group, survey, or both). Consequently, some educators might have participated in both the survey and a focus



group and it was not possible to determine the degree of overlap between survey and focus group participants. Relatedly, focus groups provided the opportunity for educators to share their experience with implementation during the pandemic. However, one disadvantage of focus groups is the possibility that participants will conform to the ideas of others or censor their thoughts. In retrospect, it would have been valuable to include a question that explicitly asked participants to indicate how much of the MindUP program they implemented. This would have provided us with a more objective measure of the degree of MindUP implementation during the pandemic. Finally, due to the small number of participants who identified as first-time implementers, it was not feasible to conduct a systematic investigation of this subgroup. However, this is an avenue for future research to consider.

### **Conclusions**

The current study illustrates educators' experiences with implementation of the MindUP program during the COVID-19 pandemic. In sum, educators faced several challenges and barriers to implementation during the pandemic. However, the reported benefits of MindUP far outweighed the difficulties encountered during the process. The results demonstrate factors that influenced implementation and illustrated the many successes and challenges of MindUP delivery during the pandemic. As such, the findings contribute to the literature on factors that might affect the implementation of evidence-based programming during the pandemic more generally. Additionally, the findings underscored the helpfulness and relevance of the MindUP program during stressful times. The current study also provides an indication of the usefulness of the multi-level implementation framework (Domitrovich et al., 2008). The results of the present study aligned well with the macro-, school-, and individual-level factors contained within the multi-level implementation framework. At the same time, they highlighted the key contributions

of student and program factors on implementation during the pandemic that are not included within the framework.

Identifying factors that affect implementation is a critical first step in creating solutions and practices to overcome barriers to implementation within schools (Merle et al., 2022; Wanless & Domitrovich et al., 2015). As such, the findings presented here have implications for practice and future research. First, time and curricular pressures were among the most frequently mentioned implementation challenges or barriers. Previous work that has sought to identify factors to overcome barriers related to time and administrative support has suggested that allocating time to allow school staff to collectively problem-solve barriers and provide space for ideas may be a helpful implementation support strategy (Merle et al., 2022). Additionally, encouraging administrator buy-in and engagement and clear messaging from school board about expectations for curriculum coverage and SEL program implementation are recommendations that might help address the barrier of time pressures. Moreover, future research might consider extending upon the current study to understand educator and other stakeholders' perspectives on the appropriateness and usefulness of tailored implementation strategies to the MindUP program specifically. Finally, the results provide an indication of the feasibility of implementing MindUP virtually. Given the increased reliance on technology within the field of education providing ongoing support for logistical and technological challenges, and additional resources on discussion-based activities are recommendations that might be helpful to those implementing MindUP virtually in the future.

Overall, implementing MindUP during a global pandemic was not an easy task but it was a worthwhile one. Notably, educators' individual circumstances and perceptions of time constraints, and support from administration mattered. Educators saw clear benefits resulting

from the MindUP program and noted an increased benefit because of the uncertainty and loss associated with the pandemic for many children. However, quality implementation is key, and it is critical to leverage successes to overcome the challenges to ensure that students are getting the most out of evidence-based programs such as MindUP.

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## Appendix A

### Email Invitation to Participate in COVID-19 Snapshot Study

Subject Line: Invitation to participate in MindUP for Young Children research study

Hello,

As this very different school year is coming to an end, we would like to offer you the opportunity to participate in a research study on MindUP for Young Children during the pandemic. You are being invited because you were trained in MindUP and Trauma-informed practices. Please remember that your participation is optional, and you may choose to withdraw at any time. As a thank you for providing your thoughts and time, we will send you a gift card for \$20 for taking the survey, and a gift card for \$20 for participating in an online focus group.

This study aims to find out about the challenges and modifications of implementing MindUP during a pandemic. Obtaining your feedback will help to promote the sustainability and future applications of MindUP in LDCSB schools.

If you wish to participate, please click the following link that will take you to an information letter, informed consent and survey on a secure server.

[https://uwo.eu.qualtrics.com/jfe/form/SV\\_50l4BmF6Wp7Lu98](https://uwo.eu.qualtrics.com/jfe/form/SV_50l4BmF6Wp7Lu98)

Thank you,



## Appendix B

### Letter of Information (LOI) and Consent (Online via Qualtrics)



#### Letter of Information and Consent Form

**Project Title:** MindUP for Young Children

**Principal Investigator:**

Claire Crooks, PhD, Director of Centre for School Mental Health  
Faculty of Education, Western University

**Study Information**

You are being invited to participate in this study because you were trained to implement the MindUP SEL program through the school board partnership with Western University. The purpose of this study is to learn about the realities of implementing MindUP during the context of the COVID-19 pandemic.

**Study Procedures**

You may choose to participate in **any** of the following activities:

- 1) To allow your MindUP **implementation tracking form** responses to be used for research purposes.

Beginning in December 2020, if you were sent a weekly link to complete a MindUP implementation tracking form for LDCSB tracking and support purposes, then we are requesting the use of these responses for research purposes. The tracking forms were linked to your email address that was stored in the secure Qualtrics server. If you agree to allow your tracking form responses to be used for research purposes, the responses may be linked with your responses from the survey and/or focus group if you participate in those components using a unique ID and not your name, email, or identifying information.

- 2) Fill out a **survey**.

The survey will take approximately 30 minutes to complete. The survey includes questions about your experience implementing or attempting to implement MindUP in your classroom and in the online learning environment during the pandemic. You may complete the survey even if you didn't implement MindUP this school year. Your responses on the survey will be de-identified and linked to a unique ID number. You are allowed to skip any of the questions. If you agree to the survey, you will be directly taken to the online survey when you provide your consent to participate below. If you agree to complete the survey, you will be given a \$20 gift card as a thank you for your participation.

- 3) Participate in a **focus group**.

The focus group consists of 9 questions about your experience implementing or attempting MindUP during the pandemic. You can choose not to answer any question or withdraw at any time. The focus group questions can be answered individually (one-on-one interview) or with other MindUP educators in a zoom conference call focus group with a research assistant. If you consent to participate in a focus group, a researcher will reach out to you via email to coordinate an interview



or focus group time and a password protected zoom link will be sent to you by email. If you participate in a focus group you will receive a \$20 gift card as a thank you for your participation.

**Possible Risks and Harms**

There are no known or anticipated risks or discomforts associated with participating in this study.

**Possible Benefits**

There are no personal benefits for participating in this study. The information provided by you will help us gather pandemic-specific context information on the implementation of MindUP for Young Children.

**Voluntary Participation**

Participation in this study is voluntary. You may refuse to participate with no effect on your involvement in the MindUP program or any other programs at LDCSB or with Centre for School Mental Health, Western University. You do not waive any legal rights by signing this consent form. You may refuse to answer any specific questions at any time. You have the right to withdraw from the study at any time. If you would like to withdraw, please contact the research team. Once the study has been published we will not be able to withdraw your information.

**Confidentiality**

All data you provide will remain confidential and is only accessible to authorized staff at the Centre for School Mental Health at Western University. Your data will be linked with a unique study ID. The list linking your unique study ID with your personal information will be stored in a secure location and kept separate from the information you provide. Your individual data will not be linked to your name or shared with anyone outside of the research team. The information is reported only as group findings.

Your informed consent and your online surveys will be collected through a third party, secure online survey platform called Qualtrics. Qualtrics uses encryption technology and restricted access authorizations to protect the privacy and security of all all data collected and retained, including personal information. In addition, Western's Qualtrics server is in Ireland, where privacy standards are maintained under the European Union's General Data Protection Regulation, which is consistent with Canada's privacy legislation. Please refer to Qualtrics's Privacy Policy (<https://www.qualtrics.com/privacystatement/>) for more details about Qualtrics's information management practices. The data will then be exported from Qualtrics and securely stored on Western University's server. Representatives of the University of Western Ontario Non-Medical Research Ethics Board may require access to your study-related records to monitor the conduct of the research.

**Compensation**

You will be provided a \$20 gift card for the survey and/or a \$20 gift card for the focus group.

**Consent**

To indicate your consent, please fill out the consent form.

**Contacts for Further Information**



If you have any questions about your participation in this research please contact [REDACTED]

If you have any questions about your rights as a research participant or the conduct of this study, you may contact The Office of Human Research Ethics [REDACTED]

[REDACTED] This office oversees the ethical conduct of research studies and is not part of the study team. Everything that you discuss will be kept confidential.

**Please download and keep a copy of this letter for your records.**

### **Consent Form**

**Project Title:** MindUP for Young Children

**Principal Investigator:** Claire Crooks, PhD, Director of Centre for School Mental Health  
Faculty of Education, Western University

I have read the Letter of Information and understand what I have read. The study has been explained to me and all questions have been answered to my satisfaction. Please check **which** activities you agree to participate in:

- ☐ I agree to allow my MindUP Implementation Tracking Form submissions to be used for research purposes.
- ☐ I agree to participate in the online survey.
- ☐ I agree to participate in an online focus group. I give permission for a member of the research team to contact me for scheduling a focus group. If you are consenting to participate in the focus group, **please provide your email address below**. It will be used to send arrange a focus group with you, as outlined in the Letter of Information.

Email address: \_\_\_\_\_

By checking the above box/boxes, typing, and signing my name below, I am electronically signing this consent form.

Please type your Name:

\_\_\_\_\_

Please sign your Name:

\_\_\_\_\_

## Appendix C

### Western University Ethics Approval



Date: 26 May 2021

To: Dr. Claire Crooks

Project ID: 108218

Study Title: MindUP for Young Children

Application Type: NMREB Amendment Form

Review Type: Delegated

Full Board Reporting Date: 04/Jun/2021

Date Approval Issued: 26/May/2021 17:45

REB Approval Expiry Date: 15/Oct/2021

Dear Dr. Claire Crooks,

The Western University Non-Medical Research Ethics Board (NMREB) has reviewed and approved the WREM application form for the amendment, as of the date noted above.

#### Documents Approved:

Document Name	Document Type	Document Date	Document Version
Appendix H Focus Group Questions_2021_03_30	Focus Group(s) Guide	30/Mar/2021	2
Appendix G MindUP Satisfaction Survey_2021_03_30	Online Survey	30/Mar/2021	2
ROMEO Crooks - submitted protocol in word_2021_05_13	Protocol	13/May/2021	13
Appendix WWW Email invitation snapshot	Recruitment Materials	13/May/2021	1
Appendix UUU LOI and Consent Covid-19 Snapshot	Written Consent/Assent	13/May/2021	1

#### Documents Acknowledged:

Document Name	Document Type	Document Date	Document Version
Appendix VVV Gift_card_and_email_address	Other Materials	30/Mar/2021	1
Appendix OOO Weekly MindUP Implementation Survey for MindUP Teacher_20210513	Other Materials	13/May/2021	2

REB members involved in the research project do not participate in the review, discussion or decision.

The Western University NMREB operates in compliance with the Tri-Council Policy Statement Ethical Conduct for Research Involving Humans (TCPS2), the Ontario Personal Health Information Protection Act (PHIPA, 2004), and the applicable laws and regulations of Ontario. Members of the NMREB who are named as Investigators in research studies do not participate in discussions related to, nor vote on such studies when they are presented to the REB. The NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000941.

Please do not hesitate to contact us if you have any questions.

Sincerely,

Ms. Katelyn Harris, Research Ethics Officer on behalf of Dr. Randal Graham, NMREB Chair

*Note: This correspondence includes an electronic signature (validation and approval via an online system that is compliant with all regulations).*

## Appendix D

### MindUP Satisfaction and Modifications Survey

#### MindUP for Young Children

##### Q1 Part A. Facilitator Characteristics and Classroom Information

How many children were enrolled in the class?

Q2 For how many years have you been teaching?

- ☐ Less than 5 years (1)
- ☐ 6 to 10 years (2)
- ☐ 11 to 15 years (3)
- ☐ 16 or more years (4)

Q3 Is this your first time delivering the MindUP™ program?

- ☐ Yes (1)
- ☐ No (2)

Q4 Please indicate the number of times you have delivered MindUP and describe your previous MindUP training and implementation.

Q5 Please indicate which grade students you recently taught the MindUP™ program to (If Split Grade, please select all that apply).

- ☐ Kindergarten (junior kindergarten / senior kindergarten) (1)
- ☐ Grade 1 (2)
- ☐ Grade 2 (3)
- ☐ Grade 3 (4)

Q6 Please indicate which teaching materials you used to implement the MindUP™ program (select all that apply):

- ☐ 2011 Pre-K-2 MindUP Curriculum Scholastic (1)
- ☐ 2011 Gr 3-5 MindUP Curriculum Scholastic (2)
- ☐ Breathing Ball (Hoberman Sphere) (3)
- ☐ Chime (4)
- ☐ Storybooks (5)
- ☐ Online materials through the LDCSB Teams site (6)
- ☐ Other (7) \_\_\_\_\_

Q7 Part B. Overall Satisfaction with MindUP During COVID-19 pandemic.

To what extent was implementing the MindUP™ program during a pandemic a positive experience?

- ☐ Not at all (1)
- ☐ Not very much (2)
- ☐ Neutral (3)
- ☐ Somewhat (4)
- ☐ Very much (5)

To what extent would you recommend the MindUP™ program to other colleagues to implement during stressful times?

- ☐ Not at all (1)
- ☐ Not very much (2)
- ☐ Neutral (3)
- ☐ Somewhat (4)
- ☐ Very much (5)

To what extent do you feel the MindUP program was suitable to teach during the pandemic?

- ☐ Not at all (1)
- ☐ Not very much (2)
- ☐ Neutral (3)
- ☐ Somewhat (4)
- ☐ Very much (5)

To what extent do you feel the MindUP™ program was beneficial for your students?

- ☐ Not at all (1)
- ☐ Not very much (2)
- ☐ Neutral (3)
- ☐ Somewhat (4)
- ☐ Very much (5)

Q8 Did you observe specific benefits or changes in students as a result of implementing the MindUP™ program during the pandemic? Please provide an example here.



Q9 Part C: Modifications to MindUP during COVID-19 Pandemic. Did you create any of your own original lessons/ activities to supplement/extend the lessons taught from the MindUP™ program?

- ☐ Yes -describe a lesson in which you created original tasks/lessons to supplement and extend learning for the children in your classroom. (1) \_\_\_\_\_
- ☐ No (2)

Q10 Did you use any activities from “Extending the Lesson” from the LDCSB MindUP Teams site to supplement/extend the lessons taught from the MindUP™ program?

- ☐ Yes -describe a lesson in which you applied activities from “Extending the Lesson” from the LDCSB MindUP Teams site to supplement and extend learning for the children in your classroom. (1) \_\_\_\_\_
- ☐ No (2)

Q11 Did you introduce any outside community resources (videos, etc.) to supplement or extend the lessons taught from the MindUP™ program?

- ☐ Yes -describe a lesson in which you supplemented or extended learning for children (1) \_\_\_\_\_
- ☐ No (2)

Q12 What about MindUP™ made it difficult to implement during the pandemic context? Check all that apply.

- ☐ Time to teach the program (1)
- ☐ Public health regulations (2)

- ☐ Prioritizing other curriculum expectations (3)
- ☐ Distraction and external influences (4)
- ☐ Implementation supports (5)
- ☐ Activities were difficult to carry out (6)
- ☐ I found some of the topics difficult to discuss with children (7)
- ☐ Instructions were unclear (8)
- ☐ Children resisted the activities/ exercises (9)
- ☐ Many children were absent (10)
- ☐ Pressure or resistance from parents (11)
- ☐ Children required extra time to discuss particular topics (12)
- ☐ Some activities triggered distress among children (13)
- ☐ Technology requirements during remote learning (14)
- ☐ Space requirements during remote learning (15)
- ☐ Other (16) \_\_\_\_\_

Q13 This school year did you alter or modify any lessons or activities to address the challenges indicated above?

If yes, please indicate which lesson or activity.

Q14 How did you modify this lesson or activity? Please describe.

Q 15 Did you think that the modified lesson or activity was effective? Please describe.

Q16 We are interested in hearing about the modifications that you made to the MindUP program during this school year due to the pandemic. What modifications did you make? Check all that apply.

- ☐ Shortened lessons/sessions by dropping activities (1)

- ☐ Shortened program by dropping lessons/sessions (2)
- ☐ Added new activities (3)
- ☐ Added new topics (4)
- ☐ Added supplementary resources (e.g. videos, books) (5)
- ☐ Increased/extended time to discuss certain topics (6)
- ☐ Omitted lessons/ sessions (7)
- ☐ Altered activities to fit public health guidelines (8)
- ☐ Other (9) \_\_\_\_\_

Q17 To what extent did the online MindUP™ training webinars prepare you to implement the MindUP™ program?

- ☐ Not at all (1)
- ☐ Not very much (2)
- ☐ Neutral (3)
- ☐ Somewhat (4)
- ☐ Very much (5)

Q18 Thinking back to the MindUP™ Online training webinar, is there something specific you can think of that would have helped you feel more prepared to implement the program?

Q19 How many of the weekly MindUP Support meetings did you attend?

- ☐ 0
- ☐ 1
- ☐ More than 1

Q20 To what extent did the online weekly MindUP™ support meetings help you implement the MindUP™ program?

- ☐ Not at all (1)
- ☐ Not very much (2)
- ☐ Neutral (3)
- ☐ Somewhat (4)
- ☐ Very much (5)

Q21 Part E: Impact of the MindUP™ Program To what extent did children enjoy the MindUP™ program?

- ☐ Not at all (1)
- ☐ Not very much (2)
- ☐ Neutral (3)
- ☐ Somewhat (4)
- ☐ Very much (5)

Q.23 To what extent did children participate in the MindUP™ program?

- ☐ Not at all (1)
- ☐ Not very much (2)
- ☐ Neutral (3)
- ☐ Somewhat (4)
- ☐ Very much (5)

Q.24 To what extent did children learn about controlling their negative emotions (emotional self-regulation)?

- ☐ Not at all (1)
- ☐ Not very much (2)
- ☐ Neutral (3)
- ☐ Somewhat (4)
- ☐ Very much (5)

Q.25 To what extent did children learn about the connection between their brains and their emotions?

- ☐ Not at all (1)
- ☐ Not very much (2)
- ☐ Neutral (3)
- ☐ Somewhat (4)
- ☐ Very much (5)

Q.26 To what extent did children learn about mindful awareness (i.e., being aware of what's happening in the present moment)?

- ☐ Not at all (1)
- ☐ Not very much (2)
- ☐ Neutral (3)
- ☐ Somewhat (4)
- ☐ Very much (5)

Q. 27 To what extent did children learn to use their senses (e.g. listening, seeing, smelling, tasting, and movement) for focused awareness?

- ☐ Not at all (1)
- ☐ Not very much (2)
- ☐ Neutral (3)
- ☐ Somewhat (4)
- ☐ Very much (5)

Q. 28 To what extent did children learn about expressing gratitude and behaving in prosocial and responsible ways (e.g., helping, sharing, cooperating with others)?

- ☐ Not at all (1)
- ☐ Not very much (2)
- ☐ Neutral (3)
- ☐ Somewhat (4)
- ☐ Very much (5)

Q.29 To what extent did children demonstrate increased skills for understanding others' perspectives?

- ☐ Not at all (1)
- ☐ Not very much (2)
- ☐ Neutral (3)
- ☐ Somewhat (4)
- ☐ Very much (5)

Q.30 To what extent did children show improved abilities to problem-solve?

- ☐ Not at all (1)
- ☐ Not very much (2)
- ☐ Neutral (3)
- ☐ Somewhat (4)
- ☐ Very much (5)

Q. 31 Please share any other comments about the MindUP™ program in the current pandemic context.

## **Appendix E**

### **Focus Group Questions**

1. What were the successes and challenges associated with implementing the MindUP™ program in your classroom during the COVID-19 pandemic?
2. Can you speak to how parents of children in your classroom have accepted the MindUP™ program during the COVID-19 pandemic?
3. What made you decide to begin implementing the MindUP™ program during a pandemic?
4. For those of you who continued, what made you decide to continue implementing the MindUP™ program during a pandemic?
5. For those of you who discontinued, what made you stop the program? (Prompt: did it relate to being in-person versus online?)
6. What advice would you give someone implementing the MindUP™ program during a pandemic?
7. We are interested in hearing about how you modified or adapted the implementation of the MindUP™ program to adhere with public health guidelines or online learning as a result of the COVID-19 pandemic. Can you share some examples of modifications or adaptations that you used? (If needed, prompt for specific units or lessons that were challenging)
8. Would you like to share any comments/feedback about the MindUP™ program?



## Appendix F

### Codebook for Focus Group and Qualitative Survey Data

Code Label/Organizational Category	Definition	Example Quote
<b>Alignment &amp; Relevance</b>		
Alignment with other SEL	The connection between the MindUP program and other SEL programs and practices used by educators	“MindUP and roots of empathy marry beautifully... They’re just a great partnership”
Alignment with teaching style	The connection between the MindUP program and educators teaching philosophy/teaching practices	“I love the MindUP program and feel that it completely aligns with my teaching philosophy
Alignment with curriculum	The connection between the MindUP program and aspects of the curriculum	“The MindUP program goes hand in hand with our kindergarten curriculum. There is a lot of overlap, especially in our Belonging and Contributing, and Self-regulation and Wellbeing frames”
Program relevance	The fit and appropriateness of the MindUP program for school-aged children, especially in the context of the pandemic	<p>“And it really applies to them. They all have a brain, and they all have feelings, so they can see this is an important thing to them”</p> <p>“Whether it’s a pandemic or not but especially during a pandemic because the kids have a lot of emotions, and they don’t know how to express those emotions”</p>
<b>Program Content</b>		
Brain breaks	The use of brain breaks during online or classroom implementation of the program	“I always felt that the brain break was most important, so I was very consistent with the brain breaks three times a day”

Perspective taking	The MindUP lesson on perspective taking	“It’s hard to get there with perspective taking, so the last few things like concrete lessons I found were hard to get to for some reason”
Mindful tasting	The MindUP lesson on mindful smelling	<p>“The other thing too with the mindful tasting. I did it once with Hershey’s kisses. I did that lesson, I found it was a little bit challenging”</p> <p>“So, we just happened to go online, so I just made a lesson right in my kitchen. I just set things up and I had things all laid out from my cupboard and I was just showing the kids the things and we had a tour of my fridge...So, actually that worked out better than if we had done it at school, it would have been more sterile at school”</p>
Mindful Smelling	The MindUP lesson on mindful smelling	<p>“We still did the sensory one with the smelling and things that we would have done in grade three/four, and that was pretty fun but it was challenging in the classroom”</p> <p>“There’s also some activities that I’ve sent them off to do [by themselves], so for example we talked about, and saw a video of students doing some mindful smelling...so that was their challenge to do over lunch”</p>

#### Process Modifications

Community connections	The process of connecting MindUP content to current events within the community	“Students wrote empathy cards for health care workers and seniors living in the local retirement home”
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Discussion-based Activities	The process of having to modify lessons to increase the amount of discussion	“[MindUP] was more discussion based than anything, I think, when we were doing it remotely”
Integrating material	The process of incorporating MindUP material into the classroom procedures and making connections between MindUP and the curriculum	<p>“We did colour, we did shape, we did smells, so we kind of integrated it through snack time and lunch time”</p> <p>“It just fits in different places or you can bring it up when there are situations in the classroom that happen and it’s a great explanation”</p>
Individual Activities	The process of having to adjust activities so that they were more individualized	“We did a lot of things that they could do on their own as opposed to things they would do together”
Chunking lessons/shortening lessons	The process of having to modify the length of lessons/delivery	<p>“[I] broke lessons up into small chunks to teach over multiple days”</p> <p>“[I] kept the lesson to 20 minutes. If needed I picked up the lesson during small group sessions”</p>
Modifying movement	The process of modify movement-based activities to limit movement around the classroom given the need for physical distancing	<p>“So, I would modify it a little bit, so that the movement, either would be limited to keep them in their desk space without them moving about the classroom”</p> <p>“It’s more active, its more moving, its more GoNoodle style deep breathing activities”</p>
Outdoor lessons	The process of teaching MindUP lessons in an outdoor setting	“We took a lot of things outside”
Responding to student needs	The process of using the MindUP program to respond to the needs of students	“I spent a lot of time on mindful listening because I felt that the students this year, they needed to be more mindful of actually listening”

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Resource Modifications		
Literacy resources	The use of additional literacy resources to support MindUP lessons	<p>“[I] spoke with our librarian for additional literacy resources to provide for students in the classroom that focused on the specific MindUP lesson/topic”</p> <p>“One of the books we didn’t have access to...I found it online so we show[ed] the kids online”</p>
Choice boards	The use of choice boards as an option to extend MindUP content as a way of encouraging participation yet ensuring that activities were not burdensome for families learning online	<p>“It was more of providing an extension. I have created SEL choice boards for parents/child to do on their own time and schedule”</p> <p>“I would provide choice boards for families, so this was during asynchronous time... this choice board had three columns and each column had different activities, one column was focused on MindUP”</p>
Mindfulness Cards	The use of mindfulness cards as an additional resource to supplement MindUP lessons	“I have to say, what I find the number one tool that has been so effective has been these cards here (the mindfulness cards)”
Online Chime	The use of an online chime to use during online learning	<p>“One thing that I found was challenging, that I forgot to mention was the online chime”</p> <p>“And so, I did a video to post of myself doing the brain break and I just use the chime sound on my phone”</p>
Sensory Materials	The use of additional sensory materials to supplement MindUP lessons	“As a class we all created personal sensory bottles in which students could use during times of deep breathing and relaxation”
Slideshows		“So what we did was, we did have some pre-made slides that we made

	The use of slideshows to aid in teaching MindUP lessons during online learning	though the SMART Board program”
Videos and Music	The use of videos and music as an additional resource to supplement MindUP lessons	“I regularly used YouTube videos to support our lessons. Example: “Why do We Lose Control of Our Emotions”, GoNoodle, stories from EpicBooks”
Additional supplementary resources	The use of additional techniques or resources used to support delivery of the MindUP program	“Students had a mood journal that they filled in before math, halfway through the day to check in on how they were feeling”
<b>COVID Restrictions</b>		
COVID protocols	The impact of COVID-19 protocols or school protocols designed to stop the spread of COVID-19 on the delivery of the MindUP program	<p>“Due to COVID protocols, some of the group tasks were difficult”</p> <p>“Due to the requirements of no bigger groups within the classroom, I found that I rarely stopped the class to breathe and calm down as student could only play in pairs”</p>
Masks	The impact of mask guidelines on the delivery of the MindUP program	<p>“Breathing was a bit of a challenge with a mask on”</p> <p>“Lots of challenges, especially to use any of the calming techniques like if you were trying to use the breathing ball things like that, because of the masks”</p>

Physical Distancing (+/-)	The impact of physical distancing guidelines on the delivery of the MindUP program	<p>“This may have been partly due to the set up for physical distancing. Students were less distracted by their peers while sitting in their own spot at a table or desk versus everyone at the gathering carpet”</p> <p>“Doing some of the activities was impossible due to safe distancing requirements or the inability to share materials between students”</p>
<b>Resources</b>		
Program Manual	The program manual and its usefulness while delivering the MindUP program during the pandemic	<p>“Even this [MindUP manual] being a physical document made it very difficult for me to, well not difficult, time consuming”</p> <p>“The manual is excellent and easy to follow”</p>
Digital Resources	Statements related to educators suggesting that a digital and central MindUP resources would be helpful	<p>“But even if this doesn’t continue, that there could be digital resources. That would be it kind of in a one stop shop, because I was shopping everywhere for different resources that would supplement that learning, and it was tricky to try to navigate where I was going to find my next supplemental resource”</p>
Lack of Resources	Not being able to access or locate MindUP resources and its impact on program delivery or starting the program in general	<p>“We were waiting for some of the materials to come in too, so it was a little bit later [starting MindUP]”</p> <p>“So, some of the ones like, some of the extended stuff I didn’t do because I didn’t have it and with COVID and all to get things [was hard]”</p>

Support		
Program champions	Educators recognizing individuals who take a leadership position in supporting the implementation of the MindUP program	“And one teacher kindergartener teacher and the ECE, they were really instrumental in getting the program off the ground to begin with, like, they’re in a lot of the videos and things like that so I knew a lot about it and we used to buddy up with the kindergartens and I loved it”
Centre for School Mental Health support	Support from members of the Centre for School Mental Health at Western University	“I appreciate all your time and effort and you know assistance too”
Administrator support	Educators’ perception of support with implementation of the MindUP program. Also includes statements related to educators’ beliefs about SEL during the pandemic	“We were told by our principal, like, don’t worry about the academics right now, the academics will come, we need to focus on the kid’s mental health, so I felt like that almost gave me permission to spend more time on it”
Board Support	Implementation supports and resources provided to help with MindUP delivery. Statements and resources related to supporting student wellness/SEL or prioritizing academics during this school year	<p>“SEL program offered through LCDSB”</p> <p>“I just jumped on a resource that the board was supporting, and I thought it would be a perfect opportunity, especially with the pandemic”</p>
Support from colleagues	Support and resources provided by colleagues to help with implementation of the MindUP program	“Spoke with our librarian for additional literacy resources to provide for students in the classroom that focused on the specific MindUP topic/lesson”
Webinars	Perceptions about the helpfulness of online training and weekly community of practices sessions	<p>“The webinars were mostly focused on in-person learning, not remote/virtual”</p> <p>“In-person training is ideal, but it is understandable why online training</p>

		webinars were the only options this year”
<b>Online Setting</b>		
Parental involvement	Parental involvement, awareness, and support of the MindUP program. Statements related to increased responsibility of parents during online learning	<p>“Because of virtual learning, I think parents perhaps had more awareness of the program which is undoubtably a good thing”</p> <p>“So, the challenge for me was getting parents or putting more responsibility on parents when they didn’t ask for this at all, but then trying to figure out how I can make it easy for them”</p>
Positive parent feedback	Positive parent feedback about the effectiveness of the MindUP program/benefits that they were seeing firsthand	“We had parents sending us videos of their children, using their MindUP practices at home, outside of our whole-group meetings to try and kind of problem solve or self-regulate during their everyday lives at home”
Distractions online	Increased distractions for students when learning and trying to implement MindUP in an online context	<p>“I did feel a challenge with the brain breaks, the kids were very distracted by what was in their environment... It was hard for a lot of them, but there were a few who were really able to still maintain the focus”</p> <p>“I can control the environment at school, to some degree, and I can’t control it when they’re home, so I think that’s another challenge, battling that environment”</p>
Discussion Challenging online	Difficulty facilitating conversations/discussion-	“We didn’t the same two-way discussions and lessons with the



	based activities in an online setting	students when online, as we were in the actual school
		“We did have students who were sharing ideas, but it was a little more laborious to do so”
Technology	The use of technology to deliver the MindUP program and associated logistical challenges	“You cannot see all students at one time on Microsoft Teams. It is hard to read student facial and body responses”
<b>School-level Factors</b>		
School organization	The organization of individual schools and its effect on delivery of the MindUP program during. Includes statements related to organization at the school level as well as organization at the grade level both during in-person and online learning	<p>“For us, we were able to make it happen because we switched to the balanced day and we found that we had more time than we were used to not having to go for recess as many times made time a little bit less of an issue for us in the classroom”</p> <p>“With our school, the kindergarten team decided we would only be doing one hour [online] with each of the groups every day. And so, it was only that one hour”</p>
Time	Limited time to cover curriculum material and implement the MindUP program, especially in the context of online learning when class time was further limited.	<p>“Remote learning limited time in which the program could be implemented fully”</p> <p>“Being a Catholic school, we have to fit in Oh Canada, we have to fit in prayer, we have to fit in numeracy, we have to fit in literacy, we have to fit I some kind of body break. So, like, there’s a lot in a very, very, very short time”</p>
Curriculum expectations	Pressure to meet curriculum expectations. Also includes statements that acknowledge the importance of meeting curriculum expectations but	“There is always a push to focus on literacy and math”

also recognize the need to focus on prioritizing SEL

“I think it’s just been a lot with the pandemic and new math curriculum”

“Regardless of the pressures to meet the curriculum at this time, I think, during a pandemic or any stressful period we have to put aside the literacy and numeracy and curriculum and focus on the children”

#### Teaching Assignment

An educator’s teaching placement, including grade and role within the classroom and its impact on the delivery of the MindUP program

“[As an] ECE it’s where my focus has been”

“I did not use the MindUP program this school year... At the end of November the school was reorganized and I had a [grade] 2/3 split. I couldn’t find the MindUP book suitable for this group suitable in the school and with all changes truthfully gave up trying to implement it”

#### Student Factors

##### Reduced student focus

Educators’ perception that students had a reduced focus during in-class and online learning this school year

“Trying to keep their attention was challenging at times”

##### Student engagement (+/-)

Educators’ perceptions of students’ participation and involvement in MindUP lessons

“Implementing the program online was more of a challenge for some of the students as they were not as engaged in the meetings or activities”

“They were all still fully engaged during our Monday MindUP lessons and activities”

Positive Student Response	Educators' perceptions of student's enjoyment of and response to MindUP lessons and activities	<p>"And for me what was significant was the way the students responded to it, they're in grade six but they loved it"</p> <p>"Our kids really responded to it more this year than last year"</p>
Student Age	Student age as a factor that impacts MindUP implementation as well as students' response to the program	<p>"I'm not sure how much they used it to cope with their stresses at home... when I am not there in front of them to remind them, I think remembering those strategies were harder, especially since these students were being exposed to MindUP for the first time in grade 6 or 7"</p>
<b>Educator Factors</b>		
Previous experience	Educators' previous experience and familiarity with implementation and knowledge of the MindUP program	<p>"I'm familiar and comfortable [with the MindUP] curriculum"</p> <p>"Keep in mind I am a first-year teacher, straight out of teachers college, so if I teach kindergarten next year, I will have a better understanding"</p>
Educator overwhelm	Educators' feelings of stress and overwhelm given the circumstances of teaching amid the COVID-19 and the increased responsibilities associated with new restrictions and competing curricular priorities	<p>"I found it difficult as a new teacher to MindUP, as well as with all the new restrictions with COVID, a little overwhelming"</p>
<b>Attitudes about MindUP</b>		
Perceived effectiveness	Educators' perceptions of general program effectiveness or seeing benefits in students as a	<p>"It was interesting that even though the circumstances weren't as good and you had to really modify some of the lessons that you were giving, it really did have an impact"</p>

	result of the MindUP program	“I feel like what I did, did have an impact for sure on their behaviour in the classroom, 100%”
Benefits for educators	Expressing that the MindUP program was beneficial for themselves or other educators in the classroom	“I think the MindUP program is really beneficial for the children [but] also for us adults to stop and think, and listen and do all of the things that are a part of this program”
Benefits for students	Educators thoughts on specific benefits and noticeable changes in students as a result of the MindUP program	<p>“Breathing techniques and tools were very beneficial in helping students to regain control of their bodies and emotions to get to a focused state where they were ready to learn”</p> <p>“The students focused better on a short lesson if there was a brain break done just before”</p>
Increased benefit because of COVID	Educators’ perceptions that students benefited more from the MindUP program this year compared to previous years	“I think that out of all of the years that I’ve done it. I think this was probably the most they got from it”
Transfer of MindUP skills	Educators’ perceptions that students were applying MindUP skills outside of the lesson (e.g., using mind up language and skills during the school day, at recess, at home)	“A lot of them [students] have already talked about how they used it at home”
Perceived value	Educators’ belief that the MindUP program is valuable, worthwhile, or a program that they would recommend to colleagues	<p>“Even if you take little pieces, you’re still teaching them something that is really valuable...”</p> <p>“We love the program and recognize how valuable it is for all walks of life. It’s like money... investment compounds over time”</p>

Important role in COVID-19 recovery	Educator's belief that the MindUP program is necessary and will be valuable in dealing with the negative effects of the COVID-19 pandemic	"It is very important to continue with this program and continue to help children cope with negative feelings and emotions; frustration, anxiety and a sense of hopelessness"
Program praise	Educators' statements expressing that they enjoyed the program, or loved implementing the program	<p>"I hope that MindUP does stick around and I'll continue using it, but I just, I do love the program as well and I'm excited to learn more about the kindergarten program and implement it all year [next year]"</p> <p>"I love the program, I absolutely love everything about it"</p>
Building relationships	Educators expressing that the MindUP helped to build student-teacher relationships and provided opportunities to connect with students on a different level	<p>"When difficult experiences arose, it helped us to have deeper conversations"</p> <p>"MindUP allows you to make that different connection with them, because they know that you really do love them, you really want them to be successful and you really want to help them learn about what's going on in their mind"</p>
Universal design	MindUP as a tool to support all students as it aligns with principles of Universal Design	"A student that I work with needs breaks and sensory input throughout the day, this was a perfect addition that he could do with his whole class"
<b>Reasons for Implementation</b>		
Evidence-based programming	The notion that MindUP program is an evidence-based program	"To be able to bring something in it that had some research base behind it too. So rather than finding something on my own. I just felt like this was something to invest in and see how well it worked"

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Fear, uncertainty, and anxiety	The importance of implementing MindUP during this school year given the amount of fear, uncertainty, and anxiety that many children are feeling	“This was the perfect year because we were constantly being, you know thrown to online, back to class, back to online. And now we can’t use the gym, like, the kids were really having to adapt to all these changes with no notice and I thought that Implementing the MindUP strategies as a class [would be helpful]”
Providing strategies/coping skills	Educators’ motivation to implement the MindUP program to provide students with strategies and coping skills	“I think especially during the pandemic, coping mechanisms and allowing them to feel their emotions and learn about emotions and those things are in the forefront, I think are more important right now during a pandemic”
Academics	Educators’ recognition and awareness of the relation between SEL and academics	“There’s a direct correlation between how a student can succeed and their mental state. So, if a student is really struggling to regulate their emotions, then it will be very difficult for them to focus on a challenging task. So, I saw it was trying to help out the students but also directly, hopefully, having an impact on their academic success as well”
Supporting student wellness	Educators’ motivation to support student wellness and mental health during the COVID-19 pandemic	“I also noticed that there were lots of articles in the news that were talking about the mental health of children. And so, I felt it was important to make sure I did something to support students’ mental health”
Transitions	Statements related to educators’ motivation to use MindUP as a tool to provide consistency during transitions between online and in-person learning.	“it provided an opportunity to model healthy stress reduction techniques for those students who were feeling stressed going from in-person to online, to in person then back to online”

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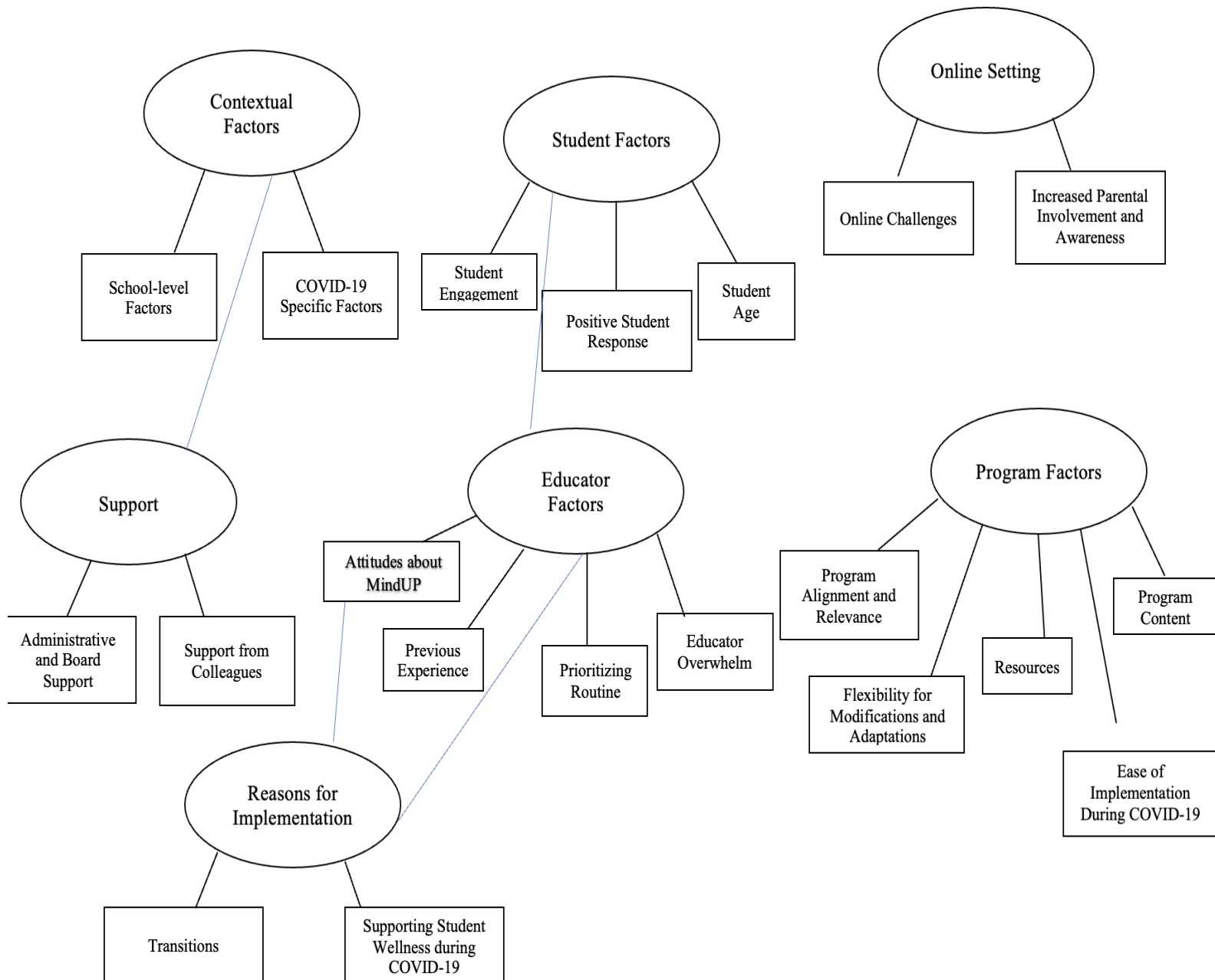
## Appendix G

### Initial Grouping of Codes



## Appendix H

### Initial Thematic Map





No table of figures entries found. **Appendix I**

### Final Thematic Conceptualization

Theme	Sub-Theme	Relevant Codes
External factors served as barriers and facilitators to implementation	Time and curriculum pressures	Time constraints School organization Curriculum pressures
	Perceptions of external support	Administrative support Board support CSMH support
	COVID-19 specific factors	COVID-19 protocols (Masks, physical distancing) Increased Pandemic Responsibilities Inconsistency
Features of the MindUP program itself impacted implementation	Program alignment and relevance	Alignment with other SEL Alignment with Curriculum Alignment with Teaching Style Relevance
	flexibility for modifications and adaptation	Process Modifications Resource Modifications Flexibility
	Resources	Lack of Resources MindUP Website Program Manual Digital Resources
	Program content	Brain Breaks Challenging Lessons
Educator characteristics contributed to continued implementation	Previous experience and self-efficacy	Previous experience
	Commitment to routine	Prioritizing routine
Online implementation had advantages and disadvantages	Online challenges	Distractions Student engagement Discussion Challenging Online Expectations Online Learning
	Increased parental involvement and awareness	Positive parent feedback

		Increased Parental Involvement
Belief in the MindUP program matters	Reasons for implementing MindUP during the pandemic	Supporting Student Wellness Transitions
	Perceived effectiveness	Positive student response Student Benefits Educator Benefits
	Perceived value	Program Praise Role in COVID-19 Recovery

### Curriculum Vitae

**Name:** Emily Barry

<b>Post-secondary Education and Degrees:</b>	<p>Memorial University of Newfoundland St. John's, Newfoundland, Canada BSc. Honours Psychology, 2016-2020</p> <p>Western University London, Ontario, Canada M.A. Education Studies, Field of School and Applied Child Psychology, 2020-Present</p>
<b>Honours and Awards</b>	<p>Canada Graduate Scholarship (CGS-M), Social Science and Humanities Research Council (SSHRC) 2020</p> <p>University of Western Ontario Scholarship of Distinction 2015</p>
<b>Related Research Experience:</b>	<p>Research Assistant Western University Centre for School Mental Health</p> <p>Research Assistant Memorial University of Newfoundland Centre for the Development of Mathematical Cognition 2018-2020</p> <p>MUCEP Position Memorial University of Newfoundland 2019-2020</p> <p>Research Volunteer McGill University C.A.R.E Research Group 2019</p> <p>Research Assistant Memorial University of Newfoundland Centre for the Development of Mathematical Cognition 2018-2020</p>