Mindfulness Implementation in the Classroom

by

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Abstract

This action research explores social and emotional learning (SEL) programming in the elementary classroom, with a focus on mindfulness practices. Factors affecting implementation of mindfulness programming were investigated by interviewing six administrators and six teachers at five elementary schools. Qualitative data was collected and analyzed in categories of program differentiation, participant responsiveness, training and expertise, collaboration and challenges. Program implementation occurred though a combination of direct and indirect approaches correlating with current research in mindfulness programming. The primary drivers of implementation were intensive collaborative supports, direct teaching of mindfulness skills with a primary focus on MindUP™ curriculum, and teacher and administrator adoption of the personal and professional practices of a mindful educator. The Zones of Regulation™ was discovered to be a foundational cornerstone providing a common language and self regulation framework. Mindfulness practices provided students with the tools to navigate through the zones of regulating mind and body, significantly increasing interpersonal and intrapersonal competencies, resulting in an increased sense of social and emotional wellbeing.

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Table of Contents

List of Acronyms

CASEL   Collaborative of Academic, Social and Emotional Learning

SEL   Social and Emotional Learning

Glossary

MindUP   An evidence based research program develop by The Hawn Foundation (2011) and published by Scholastic. Curriculum consists of 15 lessons based in neuroscience. Students develop skills in self regulation through a number of strategies with a focus on Core Practice consisting of concentrated focus on breathing and listening. Results have shown to increase academic achievement, executive functioning, social and emotional wellbeing, and prosocial skills.

Zones of Regulation A program developed by occupational therapist Leah Kuypers as a result of a capstone project (2011). A self regulation sensory based awareness program that teaches students to become aware of their emotions through four coloured zones, red, blue, yellow and green similar to street signs. The Zones program is designed to help students develop social, emotional and sensory integration through the visual supports of colour zones that identify different states of alertness and emotions. The blue zone is a low state of alertness, feeling sad or tired; the green zone is a regulated and ready to learn state; the yellow zone is a heightened state and may be stress, frustration, anxiety, wiggly; the red zone is extremely heightened state experiencing anger, rage, panic.

SMART   Stress Management & Resiliency Techniques originally developed in the United States is now managed by smartUBC. A 20 hour teacher workshop consisting of experiential activities in mindfulness practices.

CARE   Cultivating Awareness and Resilience is a teacher education program offered through the Garrison Institute and counterparts across the United States. The program consists of 37 hours of intensive workshops teaching educators how to identify and manage emotions reducing stress levels and improving social and emotional wellbeing.

Chapter 1

INTRODUCTION

1.1 Research Question

This study investigated the process of implementation of social and emotional learning (SEL) programs and the factors that affect the success of this programming. Mindfulness is a mind-body discipline that supports social and emotional development and is a component of many SEL programs. The question, which was considered from both a teachers' perspective and an administrator's perspective was: What are some of the factors that affect implementation of mindfulness programming?

1.2 Context

This research was conducted in five elementary schools in an urban school district in the Metro Vancouver area. Participating schools' populations ranged from 230 to 600 students and included Kindergarten to Grade Seven. They were chosen based on their implementation of social and emotional programs that were in emergent stages; that is, first or second year only. These schools were actively seeking to support the increasing needs of their student population due to a high vulnerability index in their local population or to introduce positive behaviour supports as a way of building school culture. Six teachers and six administrators participated in the research. Each school interviewed had a teacher and an administrator participating, with the exception of one school where only an administrator was interviewed. The six teachers consisted of three classroom teachers and three resource rooms teachers encompassing a range of teaching experience from seven to twenty-five years. Administrators' experience ranged from just over one year for one vice principal to five principals with five to fifteen years experience.

With the implementation of British Columbia's redesigned curriculum on classroom doorsteps in September 2016, there is increased attention to social and emotional learning (SEL). SEL is now a visible touchstone in the new curriculum with the integrated strand of the core competencies. The Personal and Social Competency strand has three components: Personal

Awareness and Responsibility, Social Responsibility and Positive Personal and Cultural Identity. These closely parallel the five competencies identified by the Collaborative for Academic, Social and Emotional Learning (CASEL): self-awareness, self-management, social awareness, relationship skills, responsible decision making. CASEL's mission, initiated in 1994 by Daniel Goleman, is to advance the teaching of academic, social and emotional skills making SEL an integral part of the curriculum from preschool to high school. SEL is also an integral part of British Columbia's new curriculum and thus it will be important to understand the process of implementation of programs and practices that support social and emotional learning.

1.3   Importance of Study

Mindfulness programming, which is seen as a valuable support for SEL (Schonert-Reichl, Oberle, Lawlor, Abbott, Thomson, Oberlander & Diamond, 2015), is increasingly being used to foster resilience and enhance overall well-being for children and youth. Mindfulness practices in the classrooms are continuing to demonstrate positive outcomes on psychological, behavioural, cognitive and physical domains of development. Given that social-emotional learning and mindfulness are suggested as complementary practices, mindfulness programs can be expected to be increasingly used in classrooms (Burke, 2009; Rocco, 2012). An understanding of the various definitions of mindfulness, program designs and core components, teacher training and professional development, and application in a variety of educational settings are all factors that contribute to a clearer picture of what mindfulness looks like in the classroom (Lawlor, 2014; Meiklejohn, Phillips, Freedman, Griffin, Biegel, Roach, … Pinger, et al. 2012).

During the past five years, a number of districts in the Vancouver area have implemented initiatives around SEL frameworks and many others are considering moving in this direction. This action research project will present and explore factors affecting the process of implementing mindfulness programs within a school district that is experimenting with grassroots approaches in individual schools but has not yet used the approaches broadly. Some of the conclusions and results of the data may offer insight and clearer understandings of the models or practices that are currently being used and the impacts that have been seen to date.

One of the recommendations from a Canadian review of social and emotional learning (SEL) prepared for the Carthy Foundation and Max Bell Foundation by Guyn Cooper Research

Associates (2013), was to create a website to be utilized for dialogue around change and implementation nationwide. Individuals and districts could contribute current research and programs, facilitating a collaborative action research forum. Presently in Canada there are some organizations such the Canadian Self Regulation Initiative, 2012 (CSRI) and the Discover Mindfulness website that are designed to provide overviews of programs provincially. Based in Ontario, Discover Mindfulness builds communities, tools and awareness to bring mindfulness, social and emotional learning, well-being and mental health to Canadian schools. The CSRI was initiated by former superintendent Mike McKay who was a proponent of one of the first initiatives of SEL programming in the Surrey school district. A Canadian nationwide forum has yet to be established. In the United States, the Collaborative of Academic Social and Emotional Learning(CASEL) and the Garrison Institute currently offer comprehensive inventories of social and emotional learning programs citing both evidence based research and commercial programs.

1.4   Assumptions and Declarations

The results of this qualitative study conducted in five elementary schools in the Lower Mainland cannot be generalized but nonetheless provide a useful glimpse into the implementation of an SEL program, particularly as a specific example of a process that others are studying more broadly.

Permission for this research was granted by Simon Fraser University and also approved by the Director of Instruction for the participating school district. All participants acknowledged consent and approval to participate in this research project with the understanding that all information would remain anonymous and confidential.

1.5   Organization of Report

Chapter 2 is a Literature Review of mindfulness research in areas of origins, applications in the classroom, impacts and present day programs. Chapter 3 describes the methods and the data analysis process for this research. Chapter 4 provides a comprehensive review of results designated by five main categories that emerged from the analysis with respect to affect and implementation. Chapter 5 provides a summary of findings and further questions arising from this action research.

Chapter 2

LITERATURE REVIEW

2.1   Background to Mindfulness

As a stress reduction tool noted for cultivating inner awareness and stillness, mindfulness is expanding as a highly effective way of dealing with the challenges of the 21st century. Finding its roots in Jon Kabat–Zinn's mindfulness-based stress reduction work with adults in the 1970's, mindfulness is becoming a mainstream practice for personal wellbeing as well as a means of improving both learning and leadership. Mindfulness is the practice of paying attention to the present moment without judgment. It is a mind-body practice that may be referred to as, or incorporates, a form of meditation. Defined as "the effort to intentionally pay attention, non-judgmentally to present moment experience and sustain this attention over time" (Kabat-Zinn,1990, p.11), mindfulness, is a self-regulatory skill that involves observing one's thoughts without judgment (Brown &Ryan, 2003).

Mindfulness is rooted in contemplative practices from Eastern religions, most commonly associated with Buddhism. Current day mindfulness practices originate from Kabat-Zinn's adult intervention program for stress called Mind Based Stress Reduction, (MBSR), developed at the University of Massachusetts, School of Medicine during the 1970's and 80s. MBSR is an eight week program focusing attention and thinking on the present moment through a series of exercises in breathing, visualizing, physical movements and observing thoughts and feelings without judgment. These exercises decrease levels of stress and increase self awareness and self-regulation.

Mindfulness-based approaches and programs have been rapidly expanding into many areas. Since 1980 research journals and publications on mindfulness have expanded from three publications to over seven hundred with growth tripling in the last six years. (See Figure 1). From applications in the work place, to hospitals and chronic care, clinical settings, primary and post-secondary classrooms around the world, mindfulness is everywhere. Some may also argue that it is becoming very diffuse with these applications. "SEL is where reading was at the turn of the century" (Guyn Cooper Research Associates, 2013, p.6) and mindfulness may be a form of social

and emotional literacy. Mindfulness deepens one's understanding of relationships to self and to others, and fosters a greater understanding and sensibility to the 'interbeing' of human interactions.
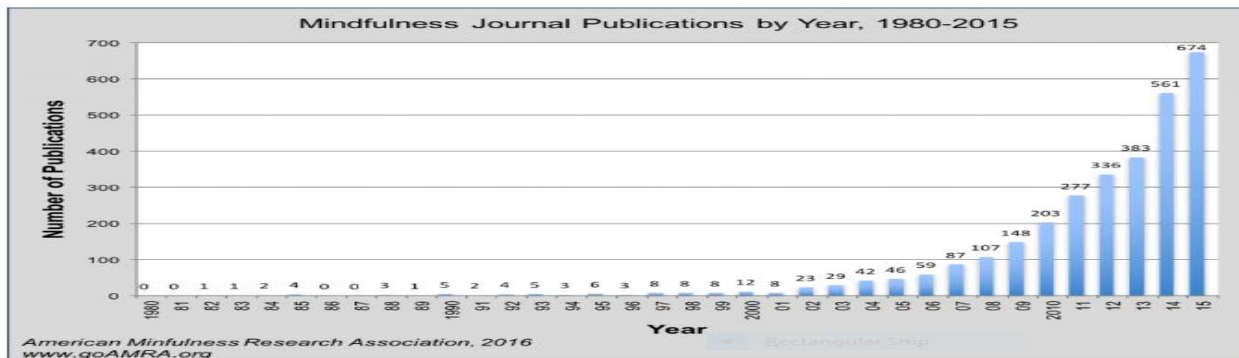

Figure 1.

2.2   Mindfulness in Education

Over the past decade, there has been an upsurge of mindfulness interventions with social emotional learning curricula for children and youth. This is a deliberate attempt to deal with the complexities, frantic pace, and demands of the highly stressed 21st century world that is shaping young people's lives today. Mindfulness programs are helping students learn to self-regulate, developing capacity for impulse control and concentration, and reducing stress anxiety related disorders, (Schonert-Reichl et al., 2015).

Additionally, as mindfulness practices provide a means of coping with stress, learning to de-stress, and finding inner peace and balance, they enhance the capacities of compassion, empathy and community awareness. Christie Whitley, former Assistant Deputy Minister and Chief Superintendent in the Yukon's Government Department of Education, sees "the immense need of a new paradigm for education, and believes mindfulness is at its core" (Brownbridge, p.18).

The social-emotional learning (SEL) component is now called the "the missing piece" (CASEL) of curriculum. Dr. Patricia Broderick in her book *Learning to Breathe* (2013), points out, however, that many SEL programs are "didactic, top-down methods." The actual practice of mindfulness is, and should be, experiential. Broderick states that programs should teach how to "tolerate distress without necessarily acting on it (distress)" (Broderick, p.9). This experiential component is a crucial indicator of effective mindfulness programs. Although it is still an emergent field, mindfulness is becoming increasingly recognized and validated, particularly locally through the work of researchers such as Dr. Kim Schonert-Reichl and the Dalai Lama Centre.

5

2.3   The Classroom Today

In the classroom, many questions and challenges face educators trying to cultivate future minds of the 21st century. How do we engage teens? How are they not to be distracted by their phones and multi-tasking screens? How do we teach moderation in the use of technology and maintain balance between screen and face to face interactions? How do we teach discernment and balance with the barrage of social media? This digital explosion and literally mind-blowing landscape becomes a mined (mind) scape that exacerbates increasingly dysfunctional family systems and social structures.

Adults too, are having difficulties coping, managing the digital era and daily life with parenting challenges, while raising a family with organic ingredients that build and sustain resilience to adversity and stress. Professor Ross Laird of Kwantlen Polytechnic University, talks about teens being mentored by screens, and the increasing absence of role models for the teenager. He also states that the addictions that are increasingly prevalent, drug use and alcohol, are the most common health issues; these are really *mental health challenges in disguise.*

Gordon Neufeld, author and prominent child /adolescent psychologist, talks about attachment and the digital revolution taking on this exponential growth because of peer orientation and the fundamental human need of attachment and belonging. This attachment that is seeking to be met, is finding a way through a digital screen of shallow and superficial relationships and connections (Neufeld, Ch. 19). The fallout is obvious and apparent; screens cannot replace the connections and relationships, established by caring adults, parents and peers. These relationships are fundamental in the healthy development of children and youth. Mentoring through positive role models, as traditional ancient cultures did through the wisdom of the elders, is critical to the development of identity and awareness of self and others and an understanding of relationship in the world.

In addition to the digital turbulence, Broderick (2013) states that "difficulties in emotional regulation are at the root of many adolescent disorders," citing many studies on depression, eating disorders, self injury, substance abuse and stress related disorders. The recent *Issue Brief (2013)* on social and emotional learning in Canada, funded by the Carthy Foundation, cited these statistics of mental health. At one time or more, students in the following categories, have experienced the following disorders:

Canada 2010	Females	Males	SEL Disorders
Grade 6	35%	27%	Depression,sadness,anxiety,sleeping
Grade10	44%	28%	Depression,sadness,anxiety,sleeping
Grade 6	27%	30%	Behavioural,attendance, aggression,defiance,manipulation
Grade 10	45%	48%	Behavioural,attendance, aggression,defiance,manipulation

Bullying, victims and victimizers, also accounted for 41% of children being affected at some point. "All of these challenges interfere with both teaching and learning and are also associated with teen and adult physical violence and criminality, substance abuse and addictions and host of other serious problems in adolescence and adulthood"(Guyn Cooper Research Associates, 2013, p.2).

In the adolescent classroom, stress manifests in a myriad of forms: debilitating anxiety, self-esteem issues, isolation, severe eating and mood disorders, substance abuse, and a variety of addictions. Teachers are struggling with the effects of these emotional and social deficits. There are increasing difficulties with students being engaged, completing assignments, attendance, increased off-task and aggressive behaviours, apathy, depression, persistent substance abuse, debilitating anxiety, and self-injury.

The kind of change children and youth are experiencing today is frantic, frenetic and foreign. Consequently, in school teachers find themselves addressing not just academic need, but also social and emotional needs. As educators, we are being summoned to support this need with a deeper layer of learning and understanding, as well as 'wrap around care.' Clearly, we need to teach students the skills to cope with the 21st century. Research is pointing towards emotional resilience, regulation and a sense of hopefulness, that is cultivated and located in relationships, as first and foremost, in ensuring and increasing our students' abilities to grow and move forward in positive directions of becoming productive, healthy and happy citizens (Thomson, Schonert-Reichl & Oberle, 2015).

2.4   Introduction to Mindfulness Applications

School based primary prevention efforts are increasingly incorporating mindfulness-based practices to foster attention, resiliency and wellbeing (Lawlor, 2014). Mental health problems, bullying, aggression, disengagement, emotional dysregulation, are escalating in late childhood and adolescence today. These problems are intensifying the need to find some practical ways of addressing these challenges, as they interfere with both, teaching and learning (Schonert-Reichl et al., 2015). Presently in education, there is an acute focus on social and emotional learning, (SEL), in relation to the increasing issues of mental health and wellbeing, violence prevention, and character education (CASEL, 2015). SEL competencies include self-awareness, self-management, social awareness, relationship skills and responsible decision making, which *directly align* with the constructs of mindfulness practices (Lawlor, 2014).

Mindfulness has been gaining ground. Evidence based research suggests that mindfulness practices bring a value added component to SEL programs (Schonert-Reichl, et.al 2015), enhancing self regulatory capacities (Mendelson, Greenberg, Dariotis, Gould, Rhoades & Leaf, 2010; Gould et al. 2014) and greater improvements in perceived levels of stress, state anxiety, and health promoting behaviours (Foret, Scult, Wilcher, Chudnofsky, Malloy, Hasheminejad & Park, 2012).

There are many mindfulness based approaches being used in K-12 education today. The Garrison Institute has compiled a comprehensive set of contemplative practices for educators in the classroom available at www.garrisoninstitute.org (Lawlor, 2014). Many programs exist as standalone curriculums to be applied along an SEL framework of learning outcomes. Others are a variety of adaptations of interventions designed to be incorporated into existing curriculum courses such as a physical education class (Mendelson et al., 2010) or health and career planning classes, character education, or as an alternate group counselling approach in alternative high schools (Wisner 2013). *MindUP*, a program for K–8, by the Hawn Foundation, and *Mindfulness in Schools Project .b (dot be) ,* from England, are examples reviewed by Lawlor as two of the few, research evidence based programs, available today (Lawlor, 2014).

Discover Mindfulness *(*http://discovermindfulness.ca*)*, is an Ontario organization which maintains a website created by professional educators and health care practitioners, that disseminates information about school district programs and community based services province

wide. This website presents an overview of programs in schools, upcoming workshops, implementation and ongoing interventions, as well as resources/links for parents, educators and health care professionals. One of the recommendations from the *Issue Brief on SEL in Canada* is to build a national website that acts as a main frame for reference in SEL curriculums Canada wide, similar to CASEL, the Collaborative of Academic Social and Emotional Learning in the United States (Guyn Cooper Research Associates, 2013). This format could be a place to incorporate a database for information on application of mindfulness programs throughout the country.

2.5   Instruction in Mindfulness

Commonalities in mindfulness based approaches "include structured activities that require sustained focused attention on an object, the breath, or a sound with the goal of sharpening concentration or attention, improving emotional regulation skill and enhancing self-awareness and knowledge" (Gould, Mendelson Dariotis, Ancona, Smith, Gonzalez, Smith, & Greenberg, 2014). Direct teaching around self regulation, self awareness, nonjudgment and observing, compassion and empathy, are main threads of mindfulness programs (Burke, 2009). Many mindfulness practices also incorporate physical movement and exercises such as yoga and tai chi (Mendelson et al., 2010; Rocco 2012).

Though there are many SEL programs, many are often didactic and employ cognitive based approaches to teaching skills and processes (Broderick, 2013). Mindfulness programs, however, are *not about* cognitive reframing and replacing maladaptive beliefs (Flook, Goldberg, Pinger, Bonus, & Davidson, 2013). Mindfulness focuses on enhancing social and emotional wellbeing, through observing and not reacting, noticing and not judging; it is about learning to be in dis-stress but not reacting to the stress.

The fundamental instructional component in a mindfulness program is that it is experiential. Students must spend time practicing, not theorizing. Experiential programs incorporate direct instruction once or twice a week and then incorporate daily minutes practices, at intervals throughout the day, as well as recommending home practice. Techniques and approaches to sustain attention are varied. Additionally, length of programs, delivery of instruction, settings and target populations vary widely (Gould et al., 2014).

A review of 18 studies published from 2005 to 2013 (Gould et al. 2014), on mindfulness programs for youth and adolescents revealed that the majority of programs did not explicitly outline core program components in terms of a formal theory of change. Core outlines are necessary in order to create consistency and sustain practices that demonstrate fidelity of implementation (Gould et al. 2014). Fidelity of implementation offers opportunities for rigorous evidence-based research to better understand the relationships between mindfulness-based programs and child and youth development.

2.6   Outcomes in Mindfulness Programs

Empirical research and evidence-based programs are expanding in the field of mindfulness practices. Mindfulness programs are being implemented daily and increasingly demonstrating significant positive psychological, physical, and cognitive benefits. These benefits are integral to increased academic abilities, social and emotional development, self regulation and enhanced wellbeing, addressing needs for all students, including at-risk populations, within an inclusive setting. A recent study on early adolescents in the classroom with the MindUP™ program, showed increased activity in areas of the brain responsible for empathy and compassion, heightened executive functions (reasoning and memory) , and increased attention and prosocial emotions (Schonert-Reichl et al.2015; Oberle et al. 2012).

Mindfulness based approaches such as relaxation response, (Foret, Scult, Wilcher, Chudnofsky, Malloy, Hasheminejad, & Park, 2012), mindfulness and meditation (Wisner, 2013), mindfulness and yoga (Mendelson et al., 2010), all demonstrate positive changes and significant effects on lowering stress and negative feelings. Reduction in rumination, which is increasingly prevalent in youth and adolescents, and is an indicator of onset of depression in later adolescence, is also a benefit of mindfulness practices (Ames, C. S., Richardson, J., Payne, S., Smith, P., & Leigh, E. (2014); Ciesla, Reilly,Dickson,Emanuel & Updegraff, 2012; Raes, Griffith, Van der Guth & Williams, 2014). In addition to benefits for students, research suggests that potential for mindfulness based interventions to promote meaningful psychological and behavioral changes in elementary school teachers, was worthy of consideration for teacher professional development and training (Flook, Goldberg, Pinger, Bonus & Davidson, 2013).

2.7   Challenges of Mindfulness in Education

Burke's (2009) meta-analysis of 15 studies on mindfulness-based approaches with children and adolescents identified meditation as the core component of the most popular mindfulness practices. To incorporate the concept of meditation into a curriculum is challenging and continues to be controversial for some stakeholders. Creators of the MindUP™ program reaffirm that their mindfulness programming is grounded in neuroscience and cognitive theories, and not in Buddhist practice. Principal Doug Allen, of Grandview Heights K–9 in Alberta, recently implemented a school wide mindfulness program, *The Mindful School*s program from California. His school is the first to do this in Alberta and he stated the following in a CBC interview.

> "….at first (I was) hesitant to introduce the program because many people might think it's not a good use of school time." He says there are many misconceptions about the concept. "A lot of people think it's religious. It's not. They think it's flaky and hippy. It's not. It's modern psychology. It's mainstream now," he said. "It's being used by parliamentarians in London, by Google Corporation, it's being used by the military. It's used in health care, it's used in psychology. But people still have this funny idea about what mindfulness is" (CBC News Oct.2014).

In addition to stakeholder perception and acceptance, issues of fidelity, sustainability, cost effectiveness, and professional development, are always key considerations when implementing changes in new curriculum and instructional practices. Research demonstrates that outcomes that are more effective are found with teachers who are experienced and knowledgeable practitioners of mindfulness (Burke, 2009). This is an important and ongoing debate in implementation regarding the quality of practitioners and efficacy of practices. Training and expertise poses a variety of challenges when introducing systemic changes at a district level (Rocco, 2012). The lack of evidence-based programs for youth and adolescents is also problematic. In the Garrison Institute's database, only four out of the thirty-six programs for youth and adolescents are peer reviewed for effectiveness and published in academic journals (Lawlor, 2014). Seeking to implement a mindfulness-based program with intentions for best practices and learning outcomes is a challenging venture.

Chapter 3
METHODS

Introduction

This is a qualitative study involving twelve participants interviewed on a one-to-one basis, with the exception of two interviews that were done concurrently. Interviews took approximately twenty-five to fifty-four minutes for a total of three hundred and nineteen minutes of recorded conversations. There were thirteen questions for teachers and ten for administrators (See Appendix A). The focus of this research was on the implementation of SEL and mindfulness practices and the impact and process of implementation in each school. As each school is unique in culture and context, the qualitative approach provided a context-sensitive way to interrogate the subtlety of the context and the impacts and challenges of SEL in each school. According to Check and Schutt (2012), a qualitative research approach is best for poorly defined education problems and appropriate for focusing on the social context of educational activities.

Analysis was done by categorizing information into the following five areas : program differentiation; training and expertise; collaboration; impact; challenges. These areas of focus were chosen from a combination of sources cited in implementation research. According to Dane and Schneider (1998) program integrity has five main dimensions: adherence, dosage, quality of delivery, participant responsiveness and program differentiation. Of these five dimensions, program differentiation and participant responsiveness were considered in this study in the categories of Programs and Resources, and Impact, respectively. "Program differentiation identifies program components in order to ascertain their unique contributions to the outcome" (Dusenbury, Brannigan, Falco, & Hansen, 2003). "Participant responsiveness measures individuals' engagement and involvement in the program" (Domitrovich & Greenberg, 2000).

Gould et al. (2014), found that in addition to core techniques and processes affecting implementation, key contextual factors such as the degree of administrative support, staff buy-in, scheduling, engagement and consistency, and appropriate space also had an impact on the effectiveness of programs. The factors of degree of administrative support and staff buy-in have been categorized together as Collaboration. Scheduling, space and engagement have been

considered in the categories of Challenges and Impacts. Training and Expertise has been considered as Lawlor (2014), identifies competent teacher instruction (in addition to other categories above) and the correlations between student success and teacher expertise as key factors of effective implementation.

Data Collection and Analysis

Interviews were recorded with an iPhone 4S and files were transferred into an MP4 format and uploaded into a German software transcription program, *Transkript 4*. Coding of information was through the NVivo software program. Data was initially collected in eight nodes. These eight categories were subsequently condensed into five main recurring themes and trends resulting in the following categories: impact, challenges, programs and resources, training and expertise and collaboration. Data was then examined and re-examined for relationships and trends. Direct quotes were extracted from these categories and implemented to support the development and establish the evidence of relationships and analysis of information.

Given that qualitative research is an emergent and an inductive process, the expectation was that themes and trends would be uncovered through the process of analysis, and evolve as data was collected and synthesized (Check & Schutt, 2012). The techniques of qualitative data analysis as described by Check and Schutt (2012), include five steps: documentation of data, organization/categorization into concepts, examining relationships, authenticating conclusions and reflexivity (p. 303).

The data analysis process of transcriptions consisted of conceptualization, coding and categorization through NVivo in the following eight nodes: impact on teachers; impact on administrators; collaboration; delivery; program and resources; time; challenges in implementation; training and expertise. Coding for relationships, organizing into themes and incorporating direct quotes was a part of the data analysis. A categorization chart with quotes listing impacts by teachers and administrators is available in the appendices. This chart helps to illustrate and clarify the areas of impact in the participants' own words in order to limit possible impacts of researcher subjectivity. Nodes for final categorization were determined based on recurring themes as well as two of those illustrated by Dane and Schneider (1998) referencing five

dimensions of program integrity and fidelity of implementation; participant responsiveness is categorized by impact and program differentiation is categorized by program and resources.

Gould et al. (2014) found, that in addition to core techniques and processes affecting implementation, key contextual factors such as the degree of administrative support, staff buy-in, scheduling, engagement and consistency, and appropriate spaces, also had an impact on the effectiveness of programs. The researcher also considered these factors in coding for the impact on teachers and administrators and programs and resources categories. Considerations of those key contextual factors also provided an indicator of authenticity as referenced in Check and Schutt (2012); comparison of conclusions from similar qualitative research projects can increase confidence in authenticity (p.307).

Limitations

With the understanding qualitative data can be misread or skewed because of inevitable subjectivity in the analysis process, the researcher has adhered to the aforementioned processes of qualitative research in order to maximize the integrity of the analysis. In addition, while there are "no set standards for evaluating the validity or authenticity of conclusions in a qualitative study", three criteria notes by Check and Schutt were considered in data collection: 1) how credible was the informant; 2) were statements made in response to the researcher's questions or were they spontaneous – spontaneous are more likely to indicate what would have been said without the researcher present; 3) presence of researcher influence actions and/or statements - reactivity. Thus, care was taken to select credible individuals for the interviews and not to use 'leading' questions, and, since this is not a process of observing the teacher in action, reactivity was not a factor.

This is a limited population sample representing approximately 25% of the elementary schools in the school district. While the researcher was aware of similar programs and processes occurring in other schools, time factors and logistics of volume of transcriptions had to be considered in narrowing down the population sample. Roles and responsibilities for classroom teachers and support teachers also include many different variables within educational programming and delivery. The correlations of relationships are not directly paralleled given the difference in teacher roles, therefore it is likely other variables may have affected implementation

processes. Differentiation in impact quotes to support teacher or classroom teacher, was not noted as the researcher felt this did not affect the authenticity of the data.

Program integrity, which refers to the degree to which a program is implemented as originally planned, is key to understanding how linkages between outcomes and programs are related (Duerden & Witt, 2012). As the primary focus of this study was not on program content and fidelity, there was no quantitative data collected in terms of adherence and dosage of programs. Additionally because no one school was following any one program this kind of data collection was not relevant. The focus of analysis was on the themes that emerged and the relationships thereof that demonstrated coherence with key dimensions that implementation research notes such as: core techniques and processes, degree of administrative support, staff buy in, engagement or impact, program differentiation, training and expertise and appropriate spaces.

Summary

This qualitative study was conducted with twelve participants from five schools in a series of interviews ranging from twenty five to fifty four minutes, guided by a set of teacher and administrator questionnaires (See Appendix A). The population sample was representative of 25% of the elementary schools in this school district. Responses were coded on the basis of implementation categories as evidenced by researchers and coding and extrapolation was done through NVivo software. Relationships were analyzed and emerged through the process of categorization and recategorization. The final five key dimensions were program differentiation, training and expertise, collaboration, challenges and impact.

Chapter 4

RESULTS

Introduction

Results of this qualitative study were categorized into the following themes: program differentiation:programs and resources; training and expertise; collaboration; participant responsiveness:impact; challenges. These categories were chosen based on a combination of dimensions as outlined by outlined by Gould et al. (2014), Check and Schutt (2011) and Dane and Schneider (1998). Results were consistent with a recent literature review on the integration of mindfulness practices in the classroom where approaches were categorized as indirect, direct or a combination of both (Meiklejohn, Phillips, Freedman, Griffin, Biegel, Roach, Pinger, et al., 2012). Indirect approaches consist of practices in which teachers are teaching mindfully through integral practices, and not directly teaching mindfulness. Direct approaches are defined as those practices that embrace a curriculum that is designed for training teachers to teach mindfulness. The results of this study demonstrated that both indirect and direct approaches were being used in varying ways through all five schools.

4.1   Program Differentiation: Resources and Programs

All schools were using the Zones of Regulation™ and many components of MindUP™ as primary drivers of SEL programming (refer to glossary for description of programs.) While *Zones of Regulation* was becoming a school-wide common language in all schools, *MindUP* practices were varied across classrooms and school-wide activities. Variations of mindfulness practices and self regulation strategies—for example, nature experiences, inspirational labs, yoga, take-a-break corners, fidget tools, furniture styles, peace corners—were also components of programs.

It is important to note that the term "program" or 'SEL programming' refers only to a combination of the above mentioned descriptions of programs and primarily reference *MindUP* and the *Zones* programs. No one school was using any singular program so dosage and adherence could not be examined. Hence program integrity with respect to adherence, dosage and fidelity as

typically considered in implementation research is not being addressed in this study. The following quotes reflect this variation.

"I take bits and pieces so I don't really take a program and use the program, I use the chime from *MindUP* and some of the breathing exercises. I use a lot of the mindful walking from my master's cohort that I did"(Teacher D1). "I have a take-a-break centre in the classroom"(Teacher D2). "I don't follow a program guide. I hit on each sense because MindUp talks about each sense but besides that, it is a blend"(Teacher D1). "My partner is doing the Superflex program as well which is the Rock Brain and the Flexible Brain so it's another way of coming at kids' understanding their emotions"(Teacher B1). "I use *MindUP* but I haven't gone through the full curriculum. I did with my last class but this class is little bit more challenging so I switched and started to incorporate the *Zones of Regulation* as well which is what we use school wide so I'm able to kind of blend *MindUP* and zones together"(Teacher D2).

While most participants have approached mindfulness through an eclectic approach there was also an acknowledgment from teachers for the need to have rigour and evidence-based programming such as *MindUP*.

"You need programs that work through research not just a whim … programs that are evidence based"(Teacher A). "I am doing MindUp because I wanted to do a sort of social emotional tool that kids could take with them so it would be a transferable skill"(Teacher B1). "I take a lot of the amygdala and the way the brain works and reacts from MindUP and include that in and say okay, so where is that with your zones of regulation and taking the strategies to calm themselves down"(Teacher B2).

4.1.1 *MindUP and Core Techniques*

The *MindUp* program is an evidence-based program with a foundation in neuroscience. All the lessons include instruction on parts and functions of the brain. Being able to reference the brain and use scientific language was a significant buy-in for the students, especially the Grade 7's, but equally accessible for the Grade 1's to incorporate into their daily vocabulary. "The kids will eat this up - brain information science this is not medicated new age stuff … even the grade 7's like it because it is scientific and we use the words like amygdala with the grade 7's and the grade 1's"(Teacher A1).Teachers and administrators both commented on the importance of brain

research as a hook for all students. Many teachers are incorporating components of programs that include some of the following self regulation tools: sparkle bottles, colouring sheets, music, yoga, chimes, putty, fidget tools, bean bag chairs, lighting effects, take-a-break corners, mindful listening, peace corners and inspiration labs.

The crucial core component and active ingredient in all the mindfulness practices was the breath as a Core Practice. The Core Practice consists of listening attentively to a resonating sound, usually a chime, and then paying attention to the breath. This practice consists of pausing, listening and breathing. As explained in the *MindUP Grade 6 -8* Curriculum Guide, "The Core Practice puts students in control of their mental and physical energy. By concentrating on the sensations of a resonant sound and then of their own breathing, students calm their minds and get ready to focus"(p.42).

4.1.2   *Zones of Regulation*

The *Zones of Regulation* is a conceptual framework used to teach student self regulation. This program is being used by all five schools. Additionally The Zones are also facilitating the development of a common language as an adjunct to school wide positive behaviour or code of conduct programs. Principal D1 commented that "The nice thing about The Zones is that you can walk into any classroom that's doing it and it's different – a different perspective but it's all under that umbrella of social emotional learning." Inspiration Lab "was already connected to something that was already happening in the school so like *Zones of Regulation* many of our classrooms are already using that" said Principal E.

One administrator noted his initial frustration with having kids being able to identify their zone but not having the tools to move through the zone. "I discovered that, yes we're doing really well trying to teach the green zone behaviours, but what was happening was the kids who were in the yellow were the ones who couldn't self regulate so we weren't giving them the tools to be able to get back into the green"(Principal A). Another administrator stated, "We realized we weren't giving them the tools to get back into the green zone – yes we're doing really well teaching the zone behaviours but we needed to give them strategies to move through the zones – we were missing this part"(Principal D1) without mindfulness strategies.

4.1.3 *Inspiration Lab*

The implementation of Inspiration Labs in two schools also has an integral role in the application of mindfulness practices. Students sign in to the lab upon entering and engage in a core practice of mindful breathing and listening. Once they have done that first step, they proceed to select another activity. The lab not only provides a number of choice opportunities for mindfulness and self-regulation, but the general atmosphere and feeling of safety and community that is created within these spaces pervades a school culture. One administrator noted that the power of the word, inspiration, elicits a tone that is markedly different than the typical punitive approach; "Go to the principal's office is very different than would you like to go to the Inspiration Lab today?" (Principal E). One of the key findings in this study is that these labs create a sense of emotional wellness and safety.

4.2   Training/Expertise

Training and expertise is cited as one of the five dimensions when assessing effectiveness of program implementation (Duerden & Witt, 2012; Gould et al., 2014). Training of mindfulness for teachers,—direct, indirect, or a combination of both,—is also an area of nascent research (Mieklejohn, et al., 2012). There was a combination of direct and indirect methods of training and informing practice around the landscape of SEL for teachers. Direct teaching of the programs and role modeling through a gradual release of responsibility framework was evident in some schools. Teaching teams in classrooms varied from a district helping teacher and the occupational therapist to a support teacher co-teaching with a classroom teacher and a collaboration teacher working with a classroom teacher.

Occupational therapists played a key role in the introduction and demonstration of the program, Zones of Regulation™ in every school. The introduction to the program included direct and indirect implementation; for example, giving professional development workshops or providing direct support to identified students with sensory needs and having the classroom teacher observe.

Direct training in MindUP™ was atypical of the participants in this study. Only one teacher had formal MindUP training, even though all were using some components of the program.

Exposure to forms of mindfulness practices varied amongst teachers who were implementing practices in their classrooms. Some had personal experiences that led to mindfulness practices, others through professional development and inservices, and some because of exposure through master's programs that were in related areas; for example, Connection and Belonging, Special Education, Ecological Pedagogy, and 21st Century Learning themed programs. However, what is evident is that those participants who were actively pursuing some components of mindfulness practice in their professional careers, as teacher or administrator, were embracing the practice both personally and professionally. Literature, such as Daniel Rechtschaffen's *The Way of Mindful Education,* was being used as a learning resource to support staff inquiry in a book study. Additionally other books on mindfulness were offered to staff at a growth planning day to peruse and pursue as a small group inquiry.

Teachers and administrators commented on personal experience as an introduction to the practice of mindfulness in some capacity. "I was thinking mindfulness because in my own journey in this role has been the last few years about how do we find balance and really balance is impossible so then it's how do we incorporate mindfulness into our life because we lead a very fast paced life and so I think my own growth has come through that and then recognizing this context"(Principal E). "To be present with my family in the moment given the demands of this position and so I needed to find a way to be more present for my family and that's been something that I've been working on for years and this has been the one practice that has actually had the most impact"(Principal D1).

4.3   Collaboration

All five schools had growth plan goals that targeted social and emotional learning and self regulation in some way. The intention had been set in terms of a shared vision that would support the development of self regulation and wellbeing for all students and staff.

4.3.1   *Forms of Collaboration*

Collaboration took many different forms: book studies, professional development, staff meetings, designated collaboration times, funding initiatives and utilization of social and human capital. "As soon as we talked about the *Zones of Regulation* and the Inspiration Lab it again was

an immediate hook and buy in and I can sincerely say with every teacher on staff"(Principal E). Not everyone is using specifically the MindUP™, and it seems to be more the primary grades at this point the zones is school wide. … more of a colleague thing you know it's worked for me this is something you may want to try in your class"(Principal B).

Creating collaborative teams of a support teacher, classroom teacher, educational assistant and child care worker was one model of implementation of The Zones and mindfulness strategies. "We weren't saying we're going to do this. It was meeting with teams and planting some seeds, providing resources and offering to have a district helping teacher facilitate team planning sessions as well"(Principal D2). Another school model evolved organically through professional growth planning days: "The collaborative teams consist of a support teacher, educational assistant and a classroom teacher and just organically teams said let's develop this together – and these groups are developing inquiry questions underneath the umbrella of engagement or social emotional learning"(Principal D1). Two other collaborations had classroom teachers and support teachers facilitating implementation of The Zones with mindfulness practices by drawing upon itinerant expertise from the occupational therapists and district helping teachers. These schools utilized a gradual release of responsibility model to introduce The Zones, which was then further enhanced with mindfulness practices supported by the support teachers. Additionally, teachers were naturally sharing practices in their classrooms with one another. "In my last school I was the one doing it so when I came here and I was next door to Sarah and said you do MindUp? You're my best friend, teach me all you know"(Teacher D2).

4.3.2   *Funding Initiatives*

Other opportunities for supporting collaboration were through the Learning Improvement Fund (LIF). In this case the support teacher and administrator utilized release time for collaboration meetings that would offer teachers the opportunity to have conversations about SEL programming and directions. Through the District's Joint Educational Committee for Individual Change (JECIC) grants, three schools obtained release time and/or dinner meetings to develop projects through book studies or sessions for planning and reviewing programs such as MindUp™. "All the teachers had *MindUp* books, through a JECIC grant we set up stations, mindfulness stations and there were seven stations that kids went through"(Teacher A). In addition to the focus on student wellbeing and self regulation, administrators felt that this focus was also good for teacher wellness. "That's

a huge part of even why I like doing this in the book club, it makes our teachers feel better as step one"(Principal C).

4.3.3 *Administrative Collaboration*

Administrators supporting teachers through conversations, role modelling and actively teaching in classrooms were other examples observed of administrative support. "We need to be teachers in the building first and if we spend time on looking at those universal ways of impacting we have, the impact is greater. I've been able to introduce new language for some of them, (teachers and students) some classrooms talk about the amygdala on a regular basis and other classrooms it's a brand new term"(Principal D1).

> "I don't think we've actually decided what that's going to look like yet I think what we've done is we've decided to role model it and facilitate in in school-wide opportunities at this point… I think it's both: top down and support up…. quite often we see top down as thou shalt versus how can I support you in that?"(Principal D1).

Administrators in some schools are also actively building connections with parents and the home through PAC meetings, newsletters and a parent portal link to videos of the kids demonstrating mindfulness practices. Parents have been inquiring about the Inspiration Lab and asking if their child can also have an opportunity to visit the lab. Other parents have started using the Zones language at home and have watched their children teach them about mindful breathing and moving from zone to zone. This has significantly increased parent participation and awareness and having parents on board is crucial to the impact and sustainability of mindfulness programs.

4.4   Participant Responsiveness: Impact

For teachers and administrators the impact of these varied SEL practices has been very positive, demonstrating significant changes in student wellbeing and behaviour. These changes have been observed through conversations, informal tracking and observations such as decreased visits to the office, fewer kids sent to the inspiration lab and less outbursts in the classroom. Three schools are considering formal data collection in the next school year. The impact on students quoted in this section will be from the third person perspective, administrator or teacher, as no students were directly interviewed.

Students are being empowered to take ownership of their own wellbeing and learning. They are using common language to articulate their moods and now have tools to regulate themselves back into the green zone being ready for learning. "The increase of their self-understanding and their self advocacy to deal with their issues instead of sitting and stewing, now they know they can go and do something about it and then come back ready to learn"(Teacher A). "They request it all the time"(Teacher D1). "They are able to focus and go to work"(Teacher D2). Through class meetings and the mindfulness practices, they can also "let go of some of that stuff which would have been really affecting their mood"(Teacher D1).

Teachers recognized that taking the time to practice mindfulness strategies is beneficial for teacher and student. "I find I can use a speaking voice instead of yelling"(Teacher D1). "I've had a little guy with fetal alcohol syndrome and he would explode and have really loud outbursts and now he is able to calm himself down using the words and strategies"(Teacher D2). "Even though he's really bouncy when we do MindUp you can actually see his whole chest go up and down and breathe"(Teacher D1). "It allows me to debrief with a student"(Teacher B2). "If I am feeling like I need a mindful break I will stop and say I need the chime – it helps us flow through our day- so they can learn from us too"(Teacher B2).

Teachers have noticed significant reduction in off-task and disruptive behaviours in the classroom.

> "It has made a world of difference.... when I came to this class it was really hyper and high strung. I had a few students with autism... slamming doors, crying, it was a very loud intense class, I brought mindfulness in there, and they just came right down so fast. The principal stopped coming to the class. We stopped having screaming meltdowns. It changed the whole atmosphere"(Teacher D2).

With the options to use something like the take-a-break corner or go to the Inspiration Lab, many students are able to self regulate. "We used the Inspiration Lab as an opportunity for a student who has just come back from a Violent Threat Risk Assessment and he has come right down back in with his peers more socializing positively with people. This student said, "School is my safe space, my safe spot." Some of the most challenging and vulnerable students have also become leaders in the class. "They've done interviews with the principal and sat up in front of the whole school and led an assembly wide mindfulness moment."

Impacts noted by administrators included a dramatic reduction of the number of students being sent to the office. There used to be "islands of kids everywhere," and the "kids were lined up" outside the office. It has "decreased the numbers of explosions, or kids not being able to function in the classroom"(Principal E). The tone and culture is also shifting in the classroom and the building. Positive and safe feeling spaces are being created. There is a "sense of energy and safety in classrooms where mindfulness is being practiced … There's definitely a different feel to the room and those kids are not escalating like they would have in the past"(Principal C).

As students now have the tools to articulate their emotions and identify strategies to self-regulate accordingly, a common language is enabling practical and purposeful communication between administrator and student when discussing behaviour incidents.

> "Mr. A, I'm in the red zone right now and I said okay. He says in fact I'm in the blood red and I could see it in his face and I said okay well what are the strategies we've discussed and so he was able to process that enough and I said great when you've gone through that I said you've regulated yourself, come back and see me and we'll work through together. Approximately five – seven minutes something like that and he approached me, 'I've got myself back into the green zone Mr. A. and I'm ready to talk about why I felt angry.' And I thought wow this is a child who last year would've gone off and took a stick because he was playing hockey and probably used it as a weapon, where he was able to recognize his body to self regulate, get himself composed and we dealt with it and talked to the kids that were also involved and the strategies and we came up with some better strategies … It works unquestionably it works and again especially now since we're using the same language"(Principal B).

4.5   Challenges in Implementation

Sustainability, timetabling, scheduling with curriculum as an add-on or woven into subjects, appropriate spaces, and training-program fidelity, were all cited as challenges to implementation. "It's not as easy as protected time for literacy blocks … and you can't be artificial and others might not be able to get there, especially because of past trauma, culture etc."(Teacher C). "It is slow to teach you really have to go step by step and allow the kids time to understand what it means"(Principal D2). "They might need this space for another classroom because we're

growing"(Principal E). "The biggest challenge is getting the program in there and getting the students doing a few lessons. Teachers buying in but I think that's not as difficult as the sustainability – keeping it going"(Teacher A).

Maintaining a sense of purpose and focus in order to meet the needs of students is first and foremost. Though this need is increasingly recognized, it still is a "challenge as it's also a shift in mindset that it is worth the time to get kids ready to learn"(Principal C) because teachers are struggling with covering curriculum demands. "There is starting to be an openness because we are recognizing the need … can't keep going in the traditional classroom because we are losing kids"(Principal E). "The important part is we know we're not done and we're going to keep going. We need to focus and keep focusing on The Zones idea and the mindfulness"(Principal A).

Integrating mindfulness programs in classrooms today may also be more complex because of the content of social and emotional programs. Although this is a secular reform, mindfulness is also a program that embodies a way of being and thinking, which may appear to some to be more about a value and belief system, rather than a curriculum of curricular competencies and prescribed learning outcomes. Current research literature recognizes this challenge as well.

> To develop mindfulness however – a process of human development – is not like other cookie cutter curriculums that can be learned in a day, outlined in a resource guide and then be brought into a classroom using a transmissive approach. Teachers may be able to pick up tips and techniques from this type of trainings that benefit student learning and development. However, more comprehensive benefits depend on a felt sense of presence that is embodied by the teacher in everyday classroom actions and instructional strategies (Mieklejohn, et al., 2012, p.3).

"However stated that this is not a program, but a way of being, something that is interwoven through school culture and teaching and day-to-day living. The hidden curriculum and the explicit curriculum; what does it feel like in your classroom –community?"(Principal D1). Because mindfulness practice is a way of being as well as a curricular learning outcome, there is another angle to be considered in implementation. "But it's all about talking and teaching – some parents say 'What's this new age stuff ? Kids used to get expelled'"(Principal A). "People still think it's touchy feely stuff"(Principal C).

Another challenge is recognizing that the success of program implementation depends upon unique factors of context and culture. "One of the things we do wrong in education is we think this is a great idea so let's carbon it, let's implement it, let's copy it and that doesn't work. As soon as you say well we're going to do this, that's it you've lost that whole point"(Principal E). Starting with a "strengths based approach and what is working is key to success"(Principal D1)."It's a collaborative organic process because we're still evolving. Consider the needs of your context, resources available to you, the strengths of the people in your building. We considered what are the passions, interests and experiences of the people building. What I've done in this school wouldn't have worked this way in my other school"(Principal E).

Summary

The results of this study have demonstrated the positive impact and effectiveness of a grassroots approach in implementation of SEL and mindfulness practices in these schools. Grassroots approaches consist of utilizing the human and social capital existing within buildings, through direct, indirect and combined methods. This combination of approaches aligns with current research on mindfulness program implementation in classrooms today (Mieklejohn, et al., 2012). Complementing this professional capital (Hargreaves & Fullan, 2012) was the influential leadership of administrators and teachers, working through a variety of collaborative models, supported by additional funds and resources. Setting goals through a shared vision to support student social and emotional wellbeing has succeeded in planting seeds that are growing a cohesive culture of community and care in all five schools.

The common language facilitated through the *Zones of Regulation* and the application of mindfulness practices through the *MindUP* program and other pieces of similar self-regulation programs, is giving students many tools to put in their self-regulation toolbox. Students are learning to navigate their complex world and stressors by regulating their brains through the zones of emotions of everyday life. Students have safe spaces and places to practice these skills and they are wrapped around in caring ways, without judgment. These practices are empowering students to take control of their own lives and supporting their growth in positive and purposeful directions.

Additionally, teachers and administrators are recognizing that SEL and application of mindfulness practices is not only determined by teacher expertise, but rather denotes a way of

being in relationship with self and others. Recognizing the infusion of personal and the professional as integral to increasing the effectiveness of mindfulness programs is a significant factor in the implementation of SEL programs.

Each school is at a different stage of implementation and growth. Metaphorically, their approach is reflective of the thoughtful gardener watching and waiting, observing the climate conditions, and determining the proper nutrients and timing to enrich and cultivate the soil. All schools are planning to continue moving forward in the direction of SEL programming with intentions to increase awareness and broaden their resource base through ongoing professional development and by targeting resources and data collection in order to measure success and inform further instruction.

The following chart, Figure 2, lists the five main categories of implementation and provides a comprehensive overview of the main findings in this study.

Categories of Implementation	Key Findings
Program Differentiation	All schools using Zones of Regulation™ as a foundation. Bridging zones with mindfulness practices – mostly derived from MindUP™. Programs are bits and pieces; components focus on identifying the zones and a common language with a core practice of breath and focused attention. Creating spaces that students can utilize mindfulness practices to self regulate. Combination of direct and indirect approaches.
Training and Expertise	No formal training in mindfulness with the exception of one teacher. Training has been related to graduate studies in other related areas or personal experience. Literature has been used to introduce mindfulness practices. JECIC grants to create training opportunities. Using professional capital and collaborative expertise. All schools supported by an Occupational Therapist in the initial introduction to the Zones.
Collaboration	All administrators are actively engaged in supporting conversations, collaboration teams, staff meetings, professional development, time and resources. Various models: involving combinations of CUPE staff, teachers, district support teachers, itinerant specialists. Grassroots approaches.
Challenges	Time to embed into curriculum as a subject, as integral. Ongoing focus needs time, resources and training. Continue to engage SEL schoolwide. Data collection to measure program impacts and effects and further inform action. It is not a cookie cutter curriculum – requires a way of being and thinking.

Participant Responsiveness: Impact	Student positive behaviour has increased; negative behaviour has decreased.
	Students overall sense of wellbeing and empowered to self regulate; ability to focus and ready to learn.
	A feeling of safety and wellbeing is created in the culture and classrooms.
	Safe spaces and caring places; the hidden curriculum is a felt sense of wellbeing in the classroom.

Figure 2

Chapter 5

DISCUSSION

Introduction

With the frantic and frenetic landscapes of the 21st century, growing up in today's society is increasingly complex. The mental health and wellbeing of students is often adversely affected by this digital cacophony. Educators are responding to the complex SEL needs of students that result. Research reveals the "explosion of interest in this important developmental domain" (CASEL Guide, 2015) and the redesign of British Columbia's curriculum, has responded to this explosion with the introduction of the core competencies of social and emotional development in order to meet the needs of students in today's classroom.

The purpose of this project was to understand what schools were doing in order to implement SEL programming and what factors affect the implementation process of mindfulness programs. This qualitative research was conducted with five elementary schools with populations ranging from 230 to 600 students. These schools were in the emergent stages of implementation of social and emotional programs actively pursuing frameworks to support the increasing needs of their student population due to a high vulnerability index in their local population, or because of necessity for positive behaviour supports in building school culture. A total of twelve educators,— six administrators and six teachers—participated in interviews about factors affecting the implementation of mindfulness programming in their schools and classrooms. Questions were based on implementation research and revolved around the concepts of training and expertise, collaboration, administrative support, teacher 'buy in', challenges, program fidelity, differentiation and resources, and participant responsiveness.

Summary of Findings

Administrative support and staff buy-in, program and resources, evidence of need and purpose, and appropriate spaces, were all factors and areas that emerged as affecting

implementation, thereby confirming similar findings as referenced by Gould et al. (2014); Mieklejohn et al. (2012). The following summary of findings corresponds to the five categories of implementation that emerged as a focus for analysis of relationships and trends.

5.1 Collaboration

Collaboration in various forms was a cornerstone of the implementation approaches in all five schools. All schools had administrator commitment and varying degrees of staff 'buy-in'. All schools utilized professional capital in varying combinations. All had support from the occupational therapist in the introduction of the *Zones of Regulation*. Administrators were actively engaged through supporting ongoing conversations of growing programs in staff meetings, collaboration teams, supporting purchasing of resources and organizing professional development opportunities. The support teacher was instrumental in four of the five schools and the use of collaboration time as a co-teaching model was most effective for scaling out mindfulness programs.

Role modeling, training and instruction and the delivery of programs was being delivered through team planning and designs, collegial sharing and opportunities initiated through invitation and shared visions in growth planning. (See Appendix B for a review chart of categories.) In no schools was there a direct top down approach, but rather a grassroots variation of bottom up/top down combinations. What was consistent in all five schools and participants, was a commitment and purposeful passion and belief in the importance of SEL programs, whether this was through an administrator's perspective or a teacher's perspective.

Hargreaves and Fullan (2012) state that "with an investment in collaboration, teachers become nation builders" (p.36). Utilizing social capital which is defined as "the collaborative power of the group within organizations" is a leading strategy to enact change "faster and more effectively" (Hargreaves & Fullan, 2012, p.37). In addition to core techniques and processes affecting implementation, Gould et al. (2014) noted the key contextual factors of the degree of administrative support and staff commitment, had an impact on the effectiveness of programs. It was evident in this study that implementation of mindfulness practices in these schools was emerging through a variety of collaborative systems.

5.2   Program Differentiation

Direct, indirect and combinations of approaches in these schools align with findings in the most current research on implementation of mindfulness practices (Mieklejohn, et al., 2012). Administrators at all five schools appeared to be approaching these beginning stages with a grassroots model of supporting teachers who were demonstrating interest and capacity in this area and utilizing their influence and expertise in supporting other staff members. Principal C noted that "People were exploring this in their own practice and in that it has been more of an eclectic approach … everybody came to the table with their toolbox and we said okay what are we going to do let's try it; we just have kind of a blend of everything we've learned, just stealing good ideas everywhere." Principal A was confident of success "because we've had the support with the occupational therapist and the district helping teacher, and the time's been given and we've found time. I just think the more the little bits and pieces but bits and pieces all towards the same thing, not six different new programs."

In terms of programs there were no initial curricula or mindfulness programs being implemented in any school. An eclectic combination of the Zones of Regulation™ and MindUP™ programs emerged from all schools. The Zones of Regulation™ is providing a common language and form of identifying a self-regulation framework that is serving as a foundational cornerstone of implementation. Additionally, the need and application of mindfulness strategies to navigate through the zones was an approach that evolved through the constructivist and emergent nature of implementation for all five schools. All schools have a mindfulness core practice of paying attention to the breath and the strategies that put the body into a calm and alert state. What is consistent and remarkable is that all schools are trending towards adopting The Zones program school wide.

The importance of creating spaces was also significant. The Inspiration Lab or the take-a-break corners were crucial in that students need to know and need to be able to access those kinds of areas in order to be able to take the time to self regulate; creating safe spaces in safe places is fundamental to implementation. It was concluded that all schools had determined that moving through the zones required more strategic and intensive approaches and mindfulness practices were providing a complementary fit. This is a perfect illustration of evidence that points to research claims that mindfulness brings a value added component to social and emotional learning programs

(Lawlor, 2014). It is noted that one of the key findings from this study was the fact that schools were combining mindfulness practices with The Zones and this was an emergent and positive consequence.

It appears that in schools where administrators were actively involved in supporting, collaborating, and providing leadership on the implementation, an eclectic, indirect approach was more prevalent. The schools that were being driven from a collaborative teacher team, were following a skills based program curricula such as MindUP™, which would be considered a direct approach (Mieklejohn et al., 2012). It appears that the integration of mindfulness practices in these schools directly aligns with the current research on mindfulness implementation in the classroom.

As a discipline, mindfulness can be integrated into the classroom using one of three basic approaches: indirect (the teacher develops a personal mindfulness practice and embodies mindfulness attitudes and behaviours through the school day); direct (programs teach the students mindfulness exercises and skills); or a combination of direct and indirect approaches (Meiklejohn et al., 2012 , p.4).

Administrators were also cautious and cognizant of the implications of jumping on a bandwagon or embracing any particular silver bullet program. Perhaps that caution is also a key ingredient in growing a grassroots model.

"As this is the beginning and we want to as much as possible not make mindfulness
a program. We really don't see us going that direction … buying MindUP™… for example on our growth planning day we put out all these books on mindfulness and asked anybody interested in starting a book club or pairing off with each other come and talk to us and we'll purchase it"(Principal D1 and D2).

5.3   Training and Expertise

It is recognized that a thorough understanding of a program's active ingredients and framework contributes to a higher degree of success and sustainability; however, it appears that a program's success and impact may not entirely be limited to level of professional expertise. There may be linkages between infusion of the personal and professional as a factor of effectiveness. As this research focus was on implementation, not directly measuring effects, there was no measure of the evidence that states the degree of effectiveness of a program and its correlation with

intensity, and dosage is directly related to teacher expertise (Duerden & Witt, 2012). Teachers with no previous formal experience or training were just as passionate about the program implementation as other teachers who had more experience or training.

The level of expertise as defined by the extent of formal training, did not determine whether the teacher would be using the program. Educators implementing the program had a varied range of expertise: one formal training, most informal through inservice or collegial sharing, professional development and mentoring, or personal experience as the expertise being applied to teaching mindfulness in the classroom. However, teachers also were cognizant of program fidelity understanding that intensity, frequency and duration are all integral to effective teaching.

"Some people don't get formal training and you just see someone chiming all the time and you don't quite understand the frequency duration and how that should look and what the kids should be doing with their bodies and the purpose and the knowledge. Chiming is useless without the brain diagrams that go along with it because you need the buy in to understand and learn why"(Teacher B2).

It is recognized that a thorough understanding of a program's active ingredients and framework may ensure a higher degree of success and sustainability, however it appears that a program's success and impact may not entirely be limited to level of expertise. The findings indicate possibilities of a correlation with personal and professional practice as a factor of effective implementation.

5.4   Participant Responsiveness/ Impact

An increased sense of social and emotional wellness was reported by staff and observed in students by administrators and teachers. Positive behaviours in students increased and negative behaviours decreased. Refer to Appendix D for further details and direct quotes categorized under impact by teacher and administrators. Tools and spaces are being provided inside and outside of the classroom, in a nonjudgmental way. For the most vulnerable and at risk students the SEL strategies are making remarkable differences.

Teachers and administrators felt they were more connected to students and better able to facilitate conversations through this common language. The opportunity to have an articulate conversation about the blue zone and the red zone demonstrates and develops a student's meta-

awareness of self (being the observer), and an awareness of how to self regulate. This common language supports effective communication in difficult behaviour situations as well as enabling the development of healthy and trusted relationships fundamental to SEL. It is through the cultivation of trusted relationships that feelings of belonging and connectedness emerge; belonging and connectedness is fundamental to student wellbeing and success.

For teachers and administrators the personal impacting the professional is central to belief. "You have to do it yourself; if you don't believe it then it won't work"(Teacher A). You have to "live it and breathe it every moment"(Principal D1). "It has ended up being the thing that I've gotten the most learning for myself" (Teacher B1). Administrators and teachers also noted that aligning practices with teaching styles and core beliefs is a cornerstone of the process. Teachers need to experience it authentically. "If you're going to teach the zones you've got to use the zones. You've got to speak the language and role model it and really live it, you really have to give people the opportunity to see the value in doing it as an adult" (Principal D1). Some educators have readily embraced mindfulness practices for the first time, others are observing from the sidelines and taking notice, others are not there yet, and some are seasoned practitioners based on lived experiences.

5.5   Challenges

While this is a secular based reform, mindfulness is also a program that embodies a way of being and thinking. This appears to be more about a value and belief system, rather than a curriculum of competencies and prescribed learning outcomes. There may be resistance to adopting these practices school-wide due to context and cultural beliefs. It is necessary to engage all stakeholders and share success stories in order to elicit support and validate results of these soft touch programs with hard evidence. Timetabling, add-ons into the curriculum, time to collaborate and plan, shifting mindsets, maintaining momentum forward, funding for resources and data collection to measure progress and effectiveness are ongoing challenges.

Limitations of the Study

Limitations of this study included a small population sample from five elementary schools representing only twenty five percent of the district population. The researcher was aware of similar programs and practices happening in many other schools so this is a very small snapshot of SEL programming currently active in the district. It is probable that most schools have some degree of SEL programs in emergent implementation stages. The teachers interviewed represent a very small sampling of the teachers in each school. A more comprehensive picture would have been provided by interviewing more teachers at each school; however, every administrator was consulted so an overview and general perspective is considered reflective of the findings. There was no quantitative data collected and subsequently all results and categorizations are subject to interpretation. No students were directly interviewed so the perspectives of impacts on students was from the administrator or teacher's observations. Additionally, research findings would be different from a secondary perspective given that the context of curriculum focus may be more intensive in high school classrooms.

Further Research Questions

Exploring methods of integrating SEL programming infused within curriculum is an area that needs consideration. This is of primary concern to educators right now as the integration of the cross-curricular core competencies in British Columbia's redesigned curriculum is underway.

In considering the nature of the curriculum of SEL and mindfulness practices, how does fidelity affect programming that is a way of being as well as a discrete curricular goal? Implementing this kind of curriculum necessitates that people will change not only what they teach but also how they teach. "People don't resist change they resist being changed" (Senge, 2013). If we believe "we teach who we are" as Parker Palmer says, then are we in essence asking our teachers to become mindful teachers, not just teach mindfulness? This is an important area of inquiry in the current research on mindfulness practices and program implementation.

A third consideration is how to continue to build a shared vision and sustain the learning forward. Is it recognizing a need, and teachers seeing results that make a difference, enough to

maintain aspiration and motivation to continue to work for change that transforms? Continuing to focus and fund the vision is crucial to moving forward.

Data collection in order to establish baselines and track effects and impacts of programming would be useful. Three of the schools are considering beginning some kind of assessment and tracking process to determine effects and support moving forward. Quantitative surveys would support this process and there are a few research based options available. The *Mindfulness Attention Awareness Scale* tool is a research evidence based measure (see Appendix E) that is easy to administer and has been used by many practitioners.

Finally, supporting teachers in their own understanding and practice in the classroom is fundamental to implementing change. Supporting teacher training and education in social and emotional learning through programs such as *SMART* and *CARE* (refer to glossary for description) would assist in developing and increasing the professional capital within the schools.

Conclusions

The process of implementation of mindfulness practices in all five schools is slowly evolving and emerging through an organic and collective process that respects teacher autonomy and professional capital. All programs started because of a visible need in the school to address behaviours, vulnerable and high needs populations. Through the Zones of Regulation™, a bridge to mindfulness practices has been created. This common language is the foundation upon which a shared vision is being constructed. Building community connections between school and home through this language has also been an indicator of the positive effects of SEL and mindfulness practices in the classroom.

Each school is at a different stage of implementation and growth. The decisions on how to move forward mirror a metaphor of a reflective gardener watching and waiting, observing the climate conditions, and determining the proper nutrients and timing from which to enrich and cultivate the soil. All schools are planning to continue developing social and emotional learning with intentions to increase awareness and broaden the resource base through additional training, by targeting resources and supports, and by monitoring and tracking results and effects.

The 2015 CASEL Guide to implementation of SEL programming states, "School leaders who model the use of SEL language and practices and endorse the use of SEL practices throughout the school building create a climate in the building that supports SEL" (p.8). It was found in this study that all participants believed the infusion of personal and professional practice is fundamental to the success of mindfulness program implementation in the classroom.

Dr. Rob Roeser, speaks about fundamental shifts in human systems thinking and collective consciousness as leaving the age of reason and entering the dawning of the age of compassion (Heart & Mind Conference, 2015). Embracing SEL as an integrated affective and cognitive framework parallels a heart and mind body connection that is also rooted in compassion and kindness, empathy, and social and emotional wellbeing.

SEL programming is not a program but a way of 'interbeing'; intra- and inter-personal competencies are developed through mindfulness practices and increasing self awareness. Developing these competencies in today's classrooms through SEL programs with mindfulness practices will create opportunities for all students and teachers to learn and to consider "How do we want to be together?"(C. Naylor, Ph.D., personal communication, Oct. 4, 2014) and how we *can* be together, in this increasingly complex world of interconnected dynamic relationships.

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Appendix A

Interview Questions for Administrators

1. What prompted your school to implement mindfulness programming?

2. Do you subscribe to a specific method?

3. How did you determine what program/method to choose?

4. How did you invite teachers to participate in the program?

5. What was the response to this invitation?

6. What in-service did you offer teachers?

7. How are you monitoring implementation of the program?

8. What are some of the challenges in implementing the program in the district?

9. How are you monitoring the impact of the program?

10. What recommendations do you have for other districts considering implementation of mindfulness based programs.

Interview for Teachers Teaching Mindfulness in the Classroom

1. What prompted you to teach mindfulness?

2. How was this idea of mindfulness introduced to you?

3. What program(s) are you using in your classroom? What are some of the core components of that program? (i.e. breath, sound, metaphor, physical movement, etc.) What resources came with it for implementation?

4. How closely do you follow the program guide? In what ways do you deviate from it, and why?

5. What prior training do you have in mindfulness and how has this affected your implementation?

6. If you did have prior training was this provided by the district or otherwise, and if so how?

7. Did you receive release time?

8. Where does mindfulness fit into your daily teaching?

9. Could you comment on your students' engagement and/or response to this program?

10. What have been some of the things that have helped you implement the program?

11. What have been some of the challenges in implementing the program in your classroom, in your school?

12. Are there things in the curriculum that make it difficult to implement? If so what changes have you made in order to make it easier to implement?

13. What have you learned through the implementation process of the use of mindfulness programs?
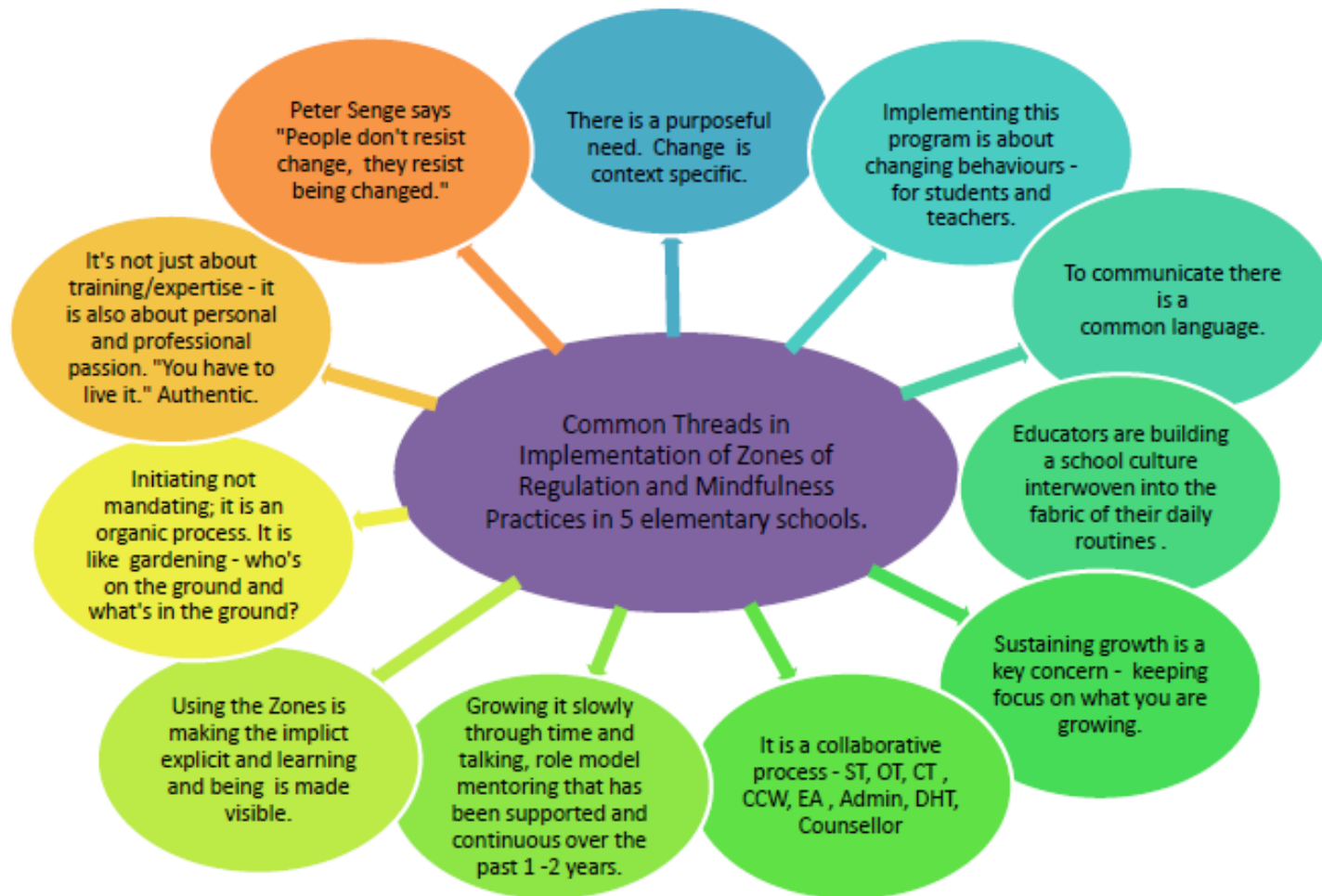
14. Other comments.

Appendix B - <u>Implementation: Program Training & Introduction</u>

ST – support teacher   CT – classroom teacher   OT – occupational therapist   A - administrator

DHT – district helping teacher   CCW – child care worker   EA – educational assistant

	Program Differentiation	**Training**	**Who Started**	**How was program introduced?**
A	Mind UP Zones of Regulation	Masters and course in meditation/ mindfulness offered through Special Ed	ST & A JECIC	JECIC grant – collaboration of team of 5 teachers – admin supported Mind Up resources – books and materials - and prep of stations for all teachers OT – ST – DHT Literacy – Zones - continuous and modelling Internal expertise - i.e. yoga
B	Mind UP Zones of Regulation (Some Superflex , ALERT)	Pro D training in MindUp and Zones Masters in related area	2 ST (by previous ST) A on board	1 ST has 3 collab blocks - direct teaching in classrooms 1 ST in own class (and direct teaching in another school – collaboration 2 days per week) OT – Zones initial inservice ST, CCW, EA and CT's
C	Zones of Regulation Mind UP	None	A (ST) JECIC 2CT Peer support	JECIC grant – Book Club and dinner meetings Admin led Visits to other schools and districts – Admin led ST and 2 CT's EA's (key rings)
D	Zones of Regulation Mind UP Take a Break	Masters in related areas personal practice	A 2 CT ST	Staff Meetings Classroom Teacher – staff meeting intro Collaboration teams – CT ST EA DHT CCW – school growth planning Admin –active teaching and role modelling –supported by various literature on SEL
E	Zones Mind UP	None but personal Practice	A ST JECIC	JECIC grant – Book Club – Admin led ST CCW EA teams , Counsellor Supported by all CT schoolwide – in order to support a particular model of SEL lab

Appendix C   Common Themes in Implementation Process

Peter Senge says "People don't resist change, they resist being changed."

There is a purposeful need. Change is context specific.

Implementing this program is about changing behaviours - for students and teachers.

It's not just about training/expertise - it is also about personal and professional passion. "You have to live it." Authentic.

To communicate there is a common language.

Common Threads in Implementation of Zones of Regulation and Mindfulness Practices in 5 elementary schools.

Educators are building a school culture interwoven into the fabric of their daily routines .

Initiating not mandating; it is an organic process. It is like gardening - who's on the ground and what's in the ground?

Using the Zones is making the implict explicit and learning and being is made visible.

Growing it slowly through time and talking, role model mentoring that has been supported and continuous over the past 1 -2 years.

It is a collaborative process - ST, OT, CT , CCW, EA , Admin, DHT, Counsellor

Sustaining growth is a key concern - keeping focus on what you are growing.

Appendix D   Quotes on Impact of Implementation

School	Teachers	Administrators
A	As a group we discussed what needed to be changed and we needed something fairly quickly – this was a good opportunity to implement SEL programs that I was familiar with. Program is real and tangible. All the teachers are talking about being mindful and what does it mean when we are in those zones. One teacher uses apps with mindful breathing. Class meeting in the morning before with a 5 point scale - now we are using the zones and then saying how can we get back to the green zone? The kids will eat this up - brain information science this is not medicated new age stuff… even the grade 7's like it because it is scientific and we use the words like amygdala with the grade 7's and the grade 1's. Seeing the transference of skills: a student reading a book and commented on the character and said "Oh he's in the blue zone."	Significantly fewer referrals to office. Comment from public presenter on significant increased positive behaviour in a school assembly – "When I used to come before assemblies were an issue." We realized we weren't giving them the tools to get back into the green zone – yes we're doing really well teaching the zone behaviours but we needed to give them strategies to move through the zones – we were missing this part (without mindfulness strategies). I'm really happy that we're moving in that way because for me that yellow zone we didn't have the tools we weren't giving them to the kids we were just expecting them to self regulate. But it's all about talking and teaching – some parents say "What's this new age stuff ? Kids used to get expelled." – it's also bringing a parent on board . Teachers were really stressed and that translated to the kids- we know it's shifting now.
B	We notice that even the grade 7's are open and accepting the use of this language. Kids articulate things like - "School is my safe space, my safe spot". I had a 100% positive responses of a survey in class – 80% had the word calm as benefit. Building relationships with students – offers an access point and common language to debrief: for example, what happened in the yellow zone? and what were people were thinking? Using the deep breathing personally with the kids, "I'm really feeling like we need to do some deep breathing". It is authentic and I'm learning and they are learning – and we have that dialogue with each other."	Students can identify and articulate what zone they are in. "I'm in the red zone right now – in fact I'm blood red.", I say , okay well what are the strategies we've discussed? So he was able to process that enough and I said great when you've done that and regulated yourself come back and see me and we'll work through together – in 5 – 7 minutes he came back and said "I've got myself back into the green zone Mr. X and I'm ready to talk about why I felt angry." Unquestionably it works especially since we're using the same language. I respect the passion and collaboration here.

	Without mindfulness the zones didn't address the psychological component of bringing yourself back down. I thought it would be a little side thing that we did but it's ended up being the thing that I've gotten the most learning for myself. Sometimes they are reminding me.	
C	It's about the wellness of our staff - it's having a positive impact even if we're not specifically teaching a program to our kids yet at least we are increasing our awareness of our own actions. Kids are asking when they go to other rooms that are not doing it – "Can we focus on our breathing for a minute?"	You can feel the difference in the classrooms using mindfulness… it has a safe feel and it is a different energy. Doing a book club makes our teachers feel better as step one. I don't know that we necessarily have to have a specific program but I do like the idea of a sharing what's working so that we're all building our own tool kit of what works best for us and our kids.
D	Made a world of difference – class was really hyper – principal was in every day – mindfulness in there and they just came right down so fast the principal stopped coming to the class – it changed the whole atmosphere. I am approachable and connected to the kids emotionally vested , it builds a relationship and that's where you start. "Different tone you use and how that impacts people around you." If I am feeling like I need a mindful break I will stop and say I need the chime – it helps us flow through our day- so they can learn from us too. It allows us to use a speaking voice instead of having to yell. Self practice and experience you have to do it yourself if you don't believe in then it won't work. We do the chime and the breathing in staff meetings and assemblies. Kids request it all the time. It has worked very well for students with FAS and autism. One student wrote a letter to Santa showing him doing MindUP with me (the teacher), I made his Christmas list. Increases their self understanding and self advocacy to deal with issues instead of sitting and stewing. They know they can go and do something about it and then come back ready to learn.	Students (some of whom were most high needs) led a school wide assembly on mindfulness. Videos shared at PAC meetings and link to parents through the portal - parents using the same strategies at home – "I looked at the stuff on the zones, it's great that you guys are doing that, we're starting to use that at home." I'm seeing kids able to speak , how to calm down from the red zone to the green zone recognizing the language and being comfortable with the language. It is powerful to see kids weaving the zones with mindfulness. It's been fun to do it's been another connective way – it is also what I think our administrative roles are – we need to be teachers in the building first. We found that teaching them to be emotionally regulated was what they need to learn first. You have to breathe and do every single moment. I do a lot of intervention in the classroom. Connected and interwoven a number of SEL approaches for staff and for kids.

	Having that time and reducing anxiety is a big one – or even sharing about it just having the connection.	
E	Teachers are using inspiration corners now.. Other teachers doing MindUp and yoga in their own classes brought other teachers on board, even teachers that didn't buy in initially. There is an openness and interest.	Really decreased the number of situations where kids become explosive or not able to function in the classroom. There used to be islands of kids everywhere. We handle things in a more proactive way and we are giving kids tools on how to manage their emotions. Parents were calling asking about the program. Building stronger community connections within the school . We're never going to get them connected to school in a positive way if it's always punitive. Teachers are using inspiration corners now..

Appendix E

The Mindfulness Attention Awareness Scale (MAAS)

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Dear Colleague,

The trait Mindful Attention Awareness Scale (MAAS) is in the public domain and special permission is not required to use it for research or clinical purposes. The trait MAAS has been validated for use with college student and community adults (Brown & Ryan, 2003), and for individuals with cancer (Carlson & Brown, 2005). A detailed description of the trait MAAS, along with normative score information, is found below, as is the scale and its scoring. A validated state version of the MAAS is also available in Brown and Ryan (2003) or upon request.

Feel free to e-mail me with any questions about the use or interpretation of the MAAS. I would appreciate hearing about any clinical or research results you obtain using the scale.

Yours,

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Mindful Attention Awareness Scale (MAAS), trait version

Characteristics of the scale:

The trait MAAS is a 15-item scale designed to assess a core characteristic of mindfulness, namely, a receptive state of mind in which attention, informed by a sensitive awareness of what is occurring in the present, simply observes what is taking place. This is in contrast to the conceptually driven mode of processing, in which events and experiences are filtered through cognitive appraisals, evaluations, memories, beliefs, and other forms of cognitive manipulation. Across many studies conducted since 2003, the trait MAAS has shown excellent psychometric properties. Factor analyses with undergraduate, community and nationally sampled adult, and adult cancer populations have confirmed a single factor scale structure (Brown & Ryan, 2003; Carlson & Brown, 2005). Internal consistency levels (Cronbach's alphas) generally range from .80 to .90. The MAAS has demonstrated high test-retest reliability, discriminant and convergent validity, known-groups validity, and criterion validity. Correlational, quasi-experimental, and experimental studies have show that the trait MAAS taps a unique quality of consciousness that is related to, and predictive of, a variety of emotion regulation, behavior regulation, interpersonal, and well-being phenomena. The measure takes 5 minutes or less to complete. A validated, 5-item state version of the MAAS is also available in Brown and Ryan (2003) or upon request.

MAAS norms to date:

Normative information on the trait MAAS is available for both community adults and college students, as follows:

Community adults (4 independent samples): $N = 436$; MAAS $M = 4.20$, $SD = .69$.

College students (14 independent samples): $N = 2277$; MAAS $M = 3.83$, $SD = .70$.

Appropriate validity references for the trait MAAS:

Brown, K.W. & Ryan, R.M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology, 84,* 822-848.

Carlson, L.E. & Brown, K.W. (2005). Validation of the Mindful Attention Awareness Scale in a cancer population. *Journal of Psychosomatic Research, 58,* 29-33.

Day-to-Day Experiences

Instructions: Below is a collection of statements about your everyday experience. Using the 1-6 scale below, please indicate how frequently or infrequently you currently have each experience. Please answer according to what *really reflects* your experience rather than what you think your experience should be. Please treat each item separately from every other item.

1	2	3	4	5	6
Almost Always	Very Frequently	Somewhat Frequently	Somewhat Infrequently	Very Infrequently	Almost Never

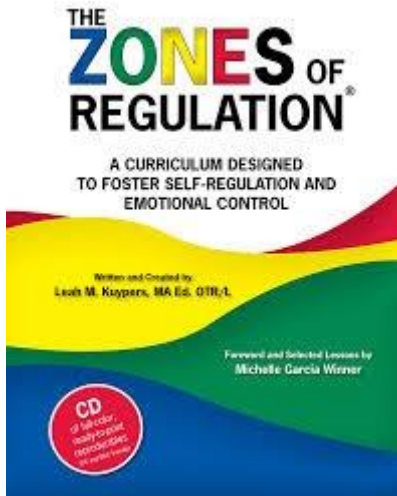|						
I could be experiencing some emotion and not be conscious of it until some time later.	1	2	3	4	5	6
I break or spill things because of carelessness, not paying attention, or thinking of something else.	1	2	3	4	5	6
I find it difficult to stay focused on what's happening in the present.	1	2	3	4	5	6
I tend to walk quickly to get where I'm going without paying attention to what I experience along the way.	1	2	3	4	5	6
I tend not to notice feelings of physical tension or discomfort until they really grab my attention.	1	2	3	4	5	6
I forget a person's name almost as soon as I've been told it for the first time.	1	2	3	4	5	6
It seems I am "running on automatic," without much awareness of what I'm doing.	1	2	3	4	5	6
I rush through activities without being really attentive to them.	1	2	3	4	5	6
I get so focused on the goal I want to achieve that I lose touch with what I'm doing right now to get there.	1	2	3	4	5	6
I do jobs or tasks automatically, without being aware of what I'm doing.	1	2	3	4	5	6
I find myself listening to someone with one ear, doing something else at the same time.	1	2	3	4	5	6

1	2	3	4	5	6
Almost Always	Very Frequently	Somewhat Frequently	Somewhat Infrequently	Very Infrequently	Almost Never

I drive places on 'automatic pilot' and then wonder why I went there.	1	2	3	4	5	6
I find myself preoccupied with the future or the past.	1	2	3	4	5	6
I find myself doing things without paying attention.	1	2	3	4	5	6
I snack without being aware that I'm eating.	1	2	3	4	5	6

MAAS Scoring

To score the scale, simply compute a mean (average) of the 15 items. Higher scores reflect higher levels of dispositional mindfulness.

Appendix F

Emoji Design by KW

Appendix G   The Inspiration Lab