INFLUENCES OF PRIVACY ON EMOTIONAL REGULATION IN ELEMENTARY CLASSROOM CALMING

CORNERS

By

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Abstract

Calming corners are separate spaces within a classroom where students have access to calming tools to aid in regulation (Izard, 2016, p. 15). Calming corners are commonly practiced among schools as a central location to practice mindfulness strategies (Skinner, 2020, p. 20). Mindfulness is a practice of grounding, which includes activities that focus on breathing, bringing awareness to body sensations and movements, as well as emotional awareness and positive affirmations (Skinner, 2020, p. 26). One could note that these mindfulness strategies would be easily accessible in any classroom location, such as a student's desk. Why then are educators finding these spaces helpful and continuing to implement them in their classrooms? The effectiveness of calming corners, more specifically the potential role of privacy in these spaces will be investigated in this study.

Keywords: calming corner, privacy, emotional regulation, theory of mind

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Chapter 1: Introduction

Schools are active environments. Many adults and students engage in learning under one roof. As of 2022, according to British Columbia (BC) regulations, up to 20 students can enroll in Kindergarten classrooms, 22 in Grades 1 to 3 classrooms and 30 in Grades 4 to 7 classrooms. Everyone is learning to meet the social and academic demands placed on them as soon as they enter the building. In one Surrey high school, there were over 1,800 students enrolled in 2019 (Reid & Collins, 2019). With this many bodies in educational buildings, the need for self-regulation is evident to help manage the overload in sensory stimulus students are facing each day. In a space where you are constantly surrounded by other individuals, where would one seek the space and privacy to manage social interaction and emotional regulation? Classrooms often accommodate up to 30 students, or in some cases more. Hallways are the highways of school buildings, as even when class is in session students are continuously travelling to get to alternate locations. Libraries provide a more calming environment, yet it is often in use by many. Is there a way for educators to incorporate elements of privacy within a classroom to allow students the autonomy to regulate social interaction and emotional needs?

Background

In any given year, 1 in 5 Canadians experience a mental illness (Smetanin et al., 2011). Moreover, young people aged 15 to 24 are more likely to experience mental illness and/or substance use disorders than any other age group (Pearson et al., 2013). According to Skinner (2020), over the past 10 to 20 years there has been a noticeable rise in mental health illness rates across the entire population, but more critically within children and adolescents (p.16). These individuals most likely go through the education system. So, what are British Columbian

schools doing to help address these mental health concerns? School districts hire counsellors to help address emotional needs of students. On the Langley School District website, they highlight the following as the role of a counsellor:

Promotes personal and social development appropriate to developmental stages;

Counsels students, their families and the community to foster growth in the students' self esteem, individual responsibility, and in skills such as decision-making and social skills;

Ameliorates factors which may precipitate problems for students;

Enhances students' educational achievement through goal setting, assisting with the development of IEPs and activities such as promotion of effective work and study habits;

Provides appropriate interventions to assist students with school-related problems and issues;

Facilitates the goals of career education by assisting students and their families to explore and clarify the student's career options, through developmental activities that stress decision-making, personal planning and career awareness (at the Secondary level). (School District 35, 2022)

Although counsellors provide valuable expertise and support, the reality remains that they do not have the capacity to see all students in a school building. For example, in an Aldergrove school, students receive a counsellor one day a week for a school of over 380 students. It is simply not possible for many in-need students to receive the total support and services they require from a school counsellor. Although classroom teachers are not counsellors, they are required to take on the role of incorporating social emotional learning

(SEL) in their classrooms through explicit instruction and environmental changes to help promote mental health. This task is daunting, as many educators realize that meaningful learning cannot take place until student minds and bodies are regulated.

SEL is becoming a central focus in education to address these rises in mental health rates that students and adults are facing. Learning on executive functioning, coping strategies, emotional understanding, and empathy are all skills that are becoming a part of education (Grazzani, 2018, p. 2; Korucu et al., 2016, p. 2; Preckel et al., 2018, p. 1; Skinner, 2020, p. 17). One way educators are starting to incorporate these skills in a classroom is through the implementation of a calming corner. Calming corners are separate spaces within a classroom where students have access to calming tools to aid in regulation (Izard, 2016, p. 15). Calming corners are commonly practiced among schools as a central location to practice mindfulness strategies (Skinner, 2020, p. 20). Mindfulness is a practice of grounding, which includes activities that focus on breathing, bringing awareness to body sensations and movements, as well as emotional awareness and positive affirmations (Skinner, 2020, p. 26). One could note that these mindfulness strategies would be easily accessible in any classroom location, such as a student's desk. Why then are educators finding these spaces helpful and continuing to implement them in their classrooms? The effectiveness of calming corners, more specifically the potential role of privacy in these spaces will be investigated in this study.

Definition of Emotional Regulation

Stuart Shanker (2017) defines emotional regulation as the "monitoring, evaluating, and modifying one's emotions" (p. 116). It actively involves individuals to recognize emotions, evaluate whether an emotion is appropriate for a situation, and if it is not, to use a coping

strategy (Shanker, 2017, p. 116). The process is multifaceted and involves many different psychological components, such as the prefrontal cortex, the amygdala and the hippocampus (Davidson, 2002, p. 75; Skinner 2020, p. 21). Each brain component is explored in depth in this study's literature review.

Definition of Calming Corners

Calming corners are commonly used among schools as a central location in a classroom to practice mindfulness strategies (Skinner, 2020, p. 20). They are also referred to as peace corners and quiet corners in research (Skinner, 2020, p. 20; Thompson, 2021, p. 15). Mindfulness refers to a sense of grounding, which involves practices of breathing, bringing awareness to body sensations and movements, as well as emotional awareness and positive affirmations (Skinner, 2020, p. 26). These corners can also include different tools to help students calm down and regulate their bodies and emotions (Thompson, 2021, p. 5). Calming corners look different in varying classrooms; however, the goal is comfort and relaxation. Some common elements are comfortable seating, low lighting, and access to calming tools. Foremost, these corners foster choice in the classroom, which can increase motivation and participation (Thompson, 2021, p. 5).

Definition of Privacy

Privacy is essential for positive development as an "invasion of privacy results in the development of emotional disorders, such as anxiety disorders, mood disorders, stress or depression" (Gwandure, 2010, p. 32). Others have noted that privacy leads to concepts of deception, secrecy, and anonymity (Margulis, 2003, p. 244). For the purpose of this project,

Pederson's (1979) approach of privacy representing the desire of solitude and isolation will be considered for the nature of emotional regulation as a topic of study (Gwandure, 2010, p. 32).

Definition of Zones

The programming and vocabulary to teach emotional regulation in this study stems from the Zones of Regulation. There are four main zones that students select from: green, blue, yellow and red. The green zone refers to a calm, ready to learn state (Kuypers, 2011). The blue zone refers to low states of alertness, such as tired, bored or sad (Kuypers, 2011). The yellow zone refers to a heightened state of alertness, with some level of control, such as frustrated, silly or excited (Kuypers, 2011). The red zone refers to a heightened state of alertness where control is lost, such as angry, elated or terrified (Kuypers, 2011). The zones will be referred to throughout this study.

Project Purpose and Objectives

The purpose of this study is to investigate the influence of privacy in a classroom calming corner on the emotional regulation in Grade 2 students in an Aldergrove elementary school. Students were given access to a calming corner in the researcher's classroom. They were introduced to the corner as a tool to calm down and help their brains get ready to learn. They had access to many tools, such as pillows, puzzles, picture books, bubble timers, fidgets, stuffed animals, a weighted vest, calming strategy cards, breathing visuals and noise cancelling headphones. After parental consent was obtained, they were given the option of filling out a survey upon completion of using the corner. The survey had three main sections: (1) identify the zone and intensity in which they entered the calming corner, (2) the reason for using the calming corner, as well as (3) the zone and intensity in which they were leaving the calming

corner. Interviews were also held throughout the study's time frame, in which students were asked three questions:

    1) How do you feel about the calming corner?

    2) Which calming corner do you prefer?

    3) Number 1 has all sides open to the room, Number 2 only has one part open to the room and Number 3 has the option of having no sides open to room. Which do you prefer? Why?

For questions two and three, students were shown three images with varying levels of privacy (refer to Chapter 4). A mixed methods design was chosen to gain holistic data that was measurable yet accounted for personal experience. The data collected will add to current research on the effectiveness of calming corners and whether it is considered best practice to incorporate these spaces in primary classrooms. Additionally, the data collected will inform educators if there is a need to have access to private spaces in the general classroom for students to regulate. Similarly, researchers and educators will be able to assess whether incorporating access to privacy via calming corners is a plausible step based on the results of this study.

Limitations

There are a few limitations to consider. Firstly, the student sample is a convenience sample from the researcher's classroom, therefore meticulous selection did not occur. Secondly, the student sampling is relatively small, as of 18 possible participants only 15 families consented. Lastly, the data was collected over 4 months. All three factors could lead to the conclusion that generalizability is compromised. As defined by Mertens (2020), "generalizability

refers to the researcher's ability to generalize the results front the same to the population from which it was drawn" (p. 4). Nevertheless, the data collected in this study can be compared to current research in the field to help uncover truths.

Outline

Chapter two of this project will outline current research on the topic emotional regulation, calming corners, and concepts of privacy. The keywords emotional regulation, calming corners, and privacy were primarily used in researching engines. The literature review will begin by exploring emotional regulation processes and programming, followed by an examination of trauma informed school models. This will lead into the topics of mindfulness techniques and the implementation of calming corners. Next, current research on privacy regarding overcrowding in schools and architectural considerations will be explored. Chapter three will unpack the methodology of the study, providing elaboration on the mixed methods design. Chapter four will unpack both quantitative survey results, as well as qualitative interview data. Links between the two forms of data will be analyzed in addition to outlier results. In Chapter fives in light of the current rise in mental health illness among children and adolescents.

Chapter 2: Literature Review

Introduction

In 2004, The Individuals with Disabilities Education Act (IDEA) was passed, stating all individuals within the education system require to be taught in the "least restrictive environment" for learning (Skinner, 2020, p. 14). This places value on the necessity to create an environment where students have their needs met (Skinner, 2020, p. 14). A learning environment is a vast concept, but Bates (2015) includes The Glossary of Educational Reform definition of a learning environment; it is described as "the diverse physical locations, contexts, and cultures in which students learn" (para. 1). This speaks to the physical environment as well as the culture that transpires in an educational setting. Although there is a diverse range of needs within a school building, addressing mental health is becoming a priority. According to Skinner (2020), over the past 10 to 20 years there has been a noticeable rise in mental health illness rates across the entire population, but more critically within children and adolescents (p. 16). Skinner (2020) further elaborates, "one in five children between the ages of 9 and 17 has an emotional or behavioral disorder and serious emotional disorders affect approximately 4%-13% of the U.S. population aged 4 to 17 years" (p. 16). This urges educators to build classroom environments that specifically target the support of students' mental health. The purpose of this literature review will be to explore emotional regulation processes, what is currently being done in educational settings to help combat these statistics, as well as a proposed area of research that could help foster least restrictive environments in educational buildings.

The review will begin by exploring psychological functioning with specific brain areas involved in emotional regulation processing (prefrontal cortex, amygdala, hippocampus) and

how education is currently addressing this through social emotional learning curriculum and practice (trauma-informed schools, mindfulness, calming corners). Concepts of privacy will be explored (overcrowding, autonomy, theory of mind) and how this might affect emotional regulation experiences in elementary classroom settings.

Emotional Regulation

As defined by Shanker and Barker (2017), *emotional regulation* refers to "monitoring, evaluating, and modifying one's emotions" (p. 116). It actively involves individuals to recognize emotions, evaluate whether an emotion is appropriate for a situation, and if it is not, to use a coping strategy (Shanker & Barker, 2017, p. 116). The process is multifaceted and involves many different psychological components.

Psychological Functioning

The brain is a complex organ that drives our daily emotional experiences. Our brain has different components that are wired for our instinct to survive, which is referred by Izard (2016) as our *safety system* (p. 13). The three main components are the prefrontal cortex, the amygdala, and the hippocampus (Davidson, 2002, p. 75; Skinner 2020, p. 21). One of the prefrontal cortex's tasks is to "modulate the time course of emotional responding, particularly recovery time" (Davidson, 2002, p. 75). Domenech and Koechlin (2015) emphasize the central role of the prefrontal cortex as decision making and executive functioning controls (p. 101). A second component is the amygdala. The amygdala is "responsible for identifying and reacting to emotions such as fear" (Skinner, 2020, p. 21). It warns our decision-maker, the prefrontal cortex, if it perceives a life-threatening situation. A

third component is the hippocampus. The hippocampus is primarily involved in our memory of these experiences (Skinner, 2020, p. 21).

Furthermore, executive functioning plays a significant role in emotional regulation. Executive functioning refers to the ability to "filter distractions, prioritize tasks, set and achieve goals, and control impulses" (Harvard University, 2020, para. 1). Korucu et al. (2016) additionally notes "executive functioning comprises a complex and interrelated set of cognitive processes including inhibition of a dominant response, mental set shifting, maintenance and manipulation of information by working memory processes that are utilized in planning, problem-solving and goal-directed thoughts" (p. 2). One of the challenges is that this higher order thinking is only capable of functioning when our safety system is in check (Izard, 2016, p. 13). Considering the rise in mental health difficulties being experienced in children and adolescents, emotions like anger, fear, and anxiety need to be addressed in current educational programs to unlock the opportunity to promote new ways of thinking and learning (Izard, 2016, p. 13).

Social Emotional Learning

Self-regulation refers to a "multidimensional construct including behavioural and cognitive processes that enable an individual to manage attention, behaviour, cognition and arousal optimally to guide his or her goal-directed activities" (Korucu et al., 2016, p. 2). Korucu et al. (2016) emphasize that "self-regulation skills are necessary both for displaying constructive behaviour and for controlling negative social behaviour" (p. 2). This highlights the link between self-regulation and social skills. This is the heart of social emotional learning (SEL) programming.

Collaborative for Academic, Social, and Emotional Learning (CASEL), an online education platform that supports educators in promoting SEL in classrooms, proposes a SEL framework made of five components: self-awareness, self-management, social awareness, relationship skills, and responsible decision-making. Self-awareness refers to "the abilities to understand one's own emotions, thoughts, and values and how they influence behavior across contexts" (CASEL, 2021, self-awareness section). Self-management refers to "the abilities to manage one's emotions, thoughts, and behaviors effectively in different situations and to achieve goals and aspirations" (CASEL, 2021, self-management section). Social awareness is defined as "the abilities to understand the perspectives of and empathize with others, including those from diverse backgrounds, cultures, & contexts" (CASEL, 2021, social awareness section). Relationship skills signifies "the abilities to establish and maintain healthy and supportive relationships and to effectively navigate settings with diverse individuals and groups" (CASEL, 2021, relationship skills section). Finally, responsible decision-making is classified as "The abilities to make caring and constructive choices about personal behavior and social interactions across diverse situations" (CASEL, 2021, responsible decision-making section). This framework helps inform the foundations of an effective social emotional learning program.

One cannot expect children to grow up developmentally adept unless explicitly taught crucial social emotional skills and given an environment which support these skills (Izard, 2016, p. 18). There is a necessity for educators in the modern-day classroom to deliver this targeted instruction and to develop an environment that supports positive social emotional development, particularly for students from low-income households or students who have experienced trauma (Izard, 2016, p. 19). Some skills that are being highlighted in current

research is to develop executive functioning, teach coping strategies, build emotional understanding, and teach empathy (Grazzani, 2018, p. 2; Korucu et al., 2016, p. 2; Preckel et al., 2018, p. 1; Skinner, 2020, p. 17). There is well-developed curriculum to support social emotional learning available to educators in Canada, such as *MindUp, Zones of Regulation, Coping Power, Second Step*, to name a few. When considering IDEA's requirement in creating "least restrictive environments", curriculum is merely one element. Further exploration is required into how the physical environment can complement SEL curriculum.

Trauma-Informed Schools

According to the Izard (2016), over 51% of students in the public school system come from low socioeconomic backgrounds. According to a study done by Gwandure (2010), they examined psychological problems in children as a result of a lack of privacy due to inadequate housing (p. 31). He noted that "children in resource poor communities can be exposed to adult material, violence and other undesirable or indecent situations in the home as a way of life due to lack of decent accommodation" (Gwandure, 2010, p. 31). A key element of trauma in schools is higher levels of dysregulation and over-stimulation (Thomspon, 2021, p. 15). Addressing unhealthy stress levels need to be a priority in schools, as stress "can and does change the structure and processes of the brain" (Izard, 2016, p. 13). The best thing schools can do for children who experience high levels of stress is to "receive a good education…where [students] are seen and known, where they learn to regulate themselves, where they can develop a sense of agency" (Izard, 2016, p. 13). This is partly developed through positive classroom climate and culture (Thompson, 2021, p. 6). One of the strategies to help develop a positive classroom culture and aid in emotional education are calming corners, also referred to as peace corners

and quiet corners in research (Thompson, 2021, p. 15; Skinner, 2020, p. 20). These calming

corners allow students to self-regulate with various mindfulness strategies.

Mindfulness and Calming Corners

Mindfulness is a practice of grounding, which includes activities that focus on breathing,

bringing awareness to body sensations and movements, as well as emotional awareness and

positive affirmations (Skinner, 2020, p. 26). Mindfulness is beneficial for improved attention,

working memory, emotional regulation, and in decreasing stress and anxiety (Tereda, 2017).

Just as high levels of stress can alter our brain development and function, mindfulness has been

found to "change the structure and electrical activity in our brain in positive ways to help

counteract what has been done by stress and poor mental health" (Skinner, 2020, p. 20).

Although there has not been copious research conducted on calming corners, it is commonly

practiced among schools as a central location to practice mindfulness strategies (Skinner, 2020,

p. 20). One could note that these mindfulness strategies would be easily accessible in any

classroom location, such as a student's desk. Why then are educators finding these spaces

helpful and continuing to implement them in their classrooms?

Elements of Privacy

According to Gwandure (2010), privacy is essential for positive development as an

"invasion of privacy results in the development of emotional disorders, such as anxiety

disorders, mood disorders, stress or depression" (p. 32). Others have noted that privacy is more

nuanced on concepts of deception, secrecy, and anonymity (Margulis, 2003, p. 244). For the

purpose of this project, Pederson's (1979) approach of privacy representing the desire of

solitude and isolation will be in consideration for the nature of emotional regulation as a topic

of study (Gwandure, 2010, p. 32).

Overcrowding

In a CBC news article, Bains (2019) states the cap for number of students per classroom

in schools in British Columbia is as follows: Grade 1-3 is 22 students, and although the

maximum claimed maximum number for students Grade 4-12 is 30, a school district or

superintendent has the power to increase that number. In a local Surrey high school, as of

September 2019, "the school-housed nine portables to make enough room for its 1,851

students, seeing as it was only built for 1,500" (Reid & Collins, 2019, para. 6). Reid and Collins

(2019) further highlight the pleas of a mother who claimed that the school had no cafeteria,

where children spend an average of 35 hours of their week. Namazian and Mehdipour (2013)

describe personal space as "a combination of distance and angle of orientation from others" (p.

110). Personal space is also a withdrawal or protective reaction to intrusions of strangers

(Namazian & Mehdipour, 2013, p. 110). This raises the question of how physical school

environments could be multifunctional and allow for personal space.

Autonomy in Regulating Social Interactions in Physical Learning Environments

Namazian and Mehdipour (2013) describe the physical environment as "the setting by

which we live our lives, and impacts on our senses, our emotions, participation in physical

activity and community life, our sense of community, and general well-being" (p. 109). The

term *responsive environments* is used to describe an environment that allows for an "easy

alternation between a state of separateness and a state of togetherness" (Namazian &

Mehdipour, 2013, p. 109). An example of this is the concept of a door; "opening it signifies a

desire for social stimulation and closing it represents a positive set/other boundary" (Namazian & Mehdipour, 2013, p. 110). Margulis (2003) further supports the need for responsive environments by stating that "privacy, as a whole or in part, represents control over transactions between person(s) and other(s), the ultimate aim of which is to enhance autonomy and/or to minimize vulnerability" (p. 245). In this sense, privacy links to emotional regulation as it provides the opportunity for individuals to relax, be oneself, emotionally vent and cope with stresses in classroom settings (Margulis, 2003, p. 246). Perhaps this could be a reason why educators continue to incorporate calming corners in classrooms; it portrays the essence of a responsive environment which gives students choice in regulating social interaction and academic demands within a classroom, correspondingly complimenting the mindfulness techniques accessed in these locations. Nevertheless, there is an additional factor to privacy in classroom settings that may also play a role in the continued use of calming corners in classrooms.

Theory of Mind

Izard (2016) writes that "a calming table and chair in the corner of the room may provide a safe place for the student to save face, regain control, and cool down while processing what just happened" (p. 28). The phrase *save face* is one that implies an awareness of other's perceptions on one's emotional reactions and experiences. Korucu et al. (2016) helps define *theory of mind* (ToM) as "the ability to understand and infer the mental states of others, including beliefs, desires, thoughts and intentions in order to predict and explain behaviour" (p. 4). Grazzani (2018) explains how "around the start of the primary school period, children begin to develop the awareness that a person can hold beliefs about others' beliefs, thereby laying

the ground for new forms of reasoning and behaviors" (Grazzani, 2018, p. 2). Are children perceiving certain beliefs that others are having of them as they experience different emotions? Is it in this way that the privacy of a calming corner allows for students to *save face?*

Perhaps calming corners are not only effective because they provide the opportunity for research-based mindfulness strategies, but because they provide an opportunity to enhance autonomy in regulating the desired level of social interaction in a crowded learning environment. Of further note, students are becoming aware of peer perceptions and therefore might be perceived negatively if lacking the privacy to emotionally regulate.

Conclusion

This review began by exploring psychological functioning with specific brain areas involved in emotional regulation processing, also referred to as the *safety system*. Research points to a rise in mental health needs in our communities and how overly active safety systems are negatively altering the neurological functioning of children. An overview of what is currently being done in school systems to promote new ways of thinking and learning were explored, such as trauma-informed schools, mindfulness techniques, and calming corners. An investigation into why educators continue to implement calming corners in classrooms despite the ability to practice mindfulness techniques in any classroom location as well as the lack of current research on these spaces was considered. Concepts of privacy, such as overcrowding, autonomy, and theory of mind, shed light as to the potential reasonings why educators find these spaces effective in helping address emotional dysregulation in their students. Therefore, the purpose of this study is to investigate the potential influences of privacy in classroom calming corners on a student's ability to emotionally regulate.

Chapter 3: Methodology

The focus of this study to investigate the potential influences of privacy on primary students' ability to emotionally regulate. This chapter will highlight the research methods and design that were chosen as a framework, will describe the participants involved in the study, will detail an outline of how data was collected, will consider possible limitations to the study, and will describe ethical considerations.

Research Design

To gain holistic data that was measurable yet accounted for personal experience, an exploratory concurrent mixed method design was chosen as outlined in Mertens (2016). Mixed method research combines quantitative and qualitative methods within a singular study (Mertens, 2016, p. 318). Quantitative research methods seek to collect and analyze data in a controlled manner that can be ultimately represented numerically (Goertzen, 2017, p. 12). Qualitative research methods place emphasis on "the members of a community who live the experiences being studied", thus data is more interpretive in nature (Mertens, 2016, pp. 243-244). As noted by Goertzen (2017), quantitative data allows researchers to note trends and behaviours, answering questions related to "what" or "how" (p. 12). Nevertheless, it "[does] not provide insight into *why* people think, feel, or act in certain ways," which therefore lacks insight to the motivation behind a behaviour or trend (Goertzen, 2017, p. 12). A primary motivation to follow a mixed methods approach was for the purpose of triangulation, which refers to the incorporation of multiple methods and multiple data sources to strengthen interpretations and conclusion, such as "[comparing] findings from the qualitative data with the quantitative results" (Mertens, 2016, p. 318).

An exploratory design was selected to provide the opportunity to explore the phenomenon of privacy within an emotional regulation context. Additionally, a concurrent design was selected because of time constraints within the school calendar year, which made a sequential design more challenging to follow.

Participants

Participants included second grade students from a rural elementary school in Aldergrove, British Columbia. The participants were the researcher's students, which lends to a convenience sample. Although convenience sampling is the least preferable sampling strategy, it is the most commonly used (Mertens, 2016, p. 353). As these students were minors, parental consent was acquired. Of the 18 families contacted, 15 gave consent for their child to participate in the research study. Of the 15 participants, 9 were male and 6 were female.

Data Collection

Data was collected quantitatively through surveys and qualitatively through interviews. Surveys were set up in the classroom's calming corner. One bin was labelled "blank" and one bin was labelled "done". When students finished using the calming corner, they had the optioncheck-in survey, when researching the effectiveness of a calming corner. Some of the items on her check-in survey included a selection of what calming choices they used, as well as identifying what zone they were in after using the calming corner. Similarly, on the survey used in this study, students were asked to identify the zone and intensity in which they entered the calming corner, the reason for using the calming corner, as well as identifying the zone and intensity in which they were leaving the calming corner. All surveys were placed in a binder locked in the researcher's classroom cabinets.

"Zones" refers to Zones of Regulation, a commonly used social-emotional programming in BC schools (School District 42, 2022; Zones of Regulation, 2022). There are four main zones that students select from: green, blue, yellow and red. The green zone refers to a calm, ready to learn states (Kuypers, 2011). The blue zone refers to low states of alertness, such as tired, bored or sad (Kuypers, 2011). The yellow zone refers to a heightened state of alertness, with some level of control, such as frustrated, silly, or excited (Kuypers, 2011). The red zone refers to a heightened state of alertness where control is lost, such as angry, elated or terrified (Kuypers, 2011). The point of the Likert-type scale on the surveys was to measure effectiveness of the different strategies' students used in the calming corner.

Interviews were conducted during the researcher's preparation blocks, which are blocks of times where students are with other non-enrolling teachers to allow the classroom teacher independent time to work on school related endeavours. During each interview students were asked three questions:

1) How do you feel about the calming corner?

2) Which calming corner do you prefer?

3) Number 1 has all sides open to the room, Number 2 only has one part open to the room and Number 3 has the option of having no sides open to room. Which do you prefer? Why?

For questions two and three, the researcher had three photos depicting different levels of privacy (Figure 1). The first photo's calming corner was fully exposed to the class, the second photo had one side open to the classroom, and the final photo had the option of fully closing

off from the classroom. Responses from students were kept on a Microsoft word document saved to the researcher's OneDrive.

Possible Limitations

This research study was conducted with a small number of students from the same geographical location; therefore, generalizability is compromised. Furthermore, there was only one level of privacy in the researcher's classroom calming corner, which would have fit the criteria of number 2 in the interview questions, only one side was open to the room; therefore, cross examinations for levels of privacy with the surveys was one-dimensional.

Ethical Considerations

Considering the researcher is also the participant's teacher, there are many ethical considerations. Firstly, since the researcher is in a power of position, it was critical to communicate with participants that there was no penalty for not participating in the study and that they could withdraw at any time. If they chose not to complete a survey or participate in the interview it would not affect their merits.

A second consideration was to ensure anonymity; therefore, pseudonyms are used in replacement of real names. In descriptions of students, students are kept anonymous by ensuring that only non-identifiable information is shared.

Lastly, all data is stored in a password protected OneDrive account. All hardcopy data will be shredded six months post publishing.

Summary and Conclusions

This chapter detailed the research design selected, an exploratory concurrent mixed method that followed an exploratory design. A description of participants, data collection via surveys and interviews, possible limitations, results will be discussed.

Chapter 4: Research Results

As the research design follows an exploratory concurrent mixed method design, both

quantitative and qualitative data were collected concurrently. Nevertheless, the researcher first

introduced the quantitative measures to participants, thus the quantitative data will be

analyzed first. Quantitative research methods seek to collect and analyze data in a controlled

manner that can be ultimately represented numerically (Goertzen, 2017, p. 12). As noted by

Goertzen (2017), quantitative data allows researchers to note trends and behaviours,

answering questions related to "what" or "how" (p. 12).

Surveys

Quantitative data collection via surveys commenced on January 18, 2022 and finished

on April 29, 2022. The total number of collected surveys where an impact on dysregulated

states could be calculated finalized as 27 surveys. Incomplete surveys, referring to surveys

where there was insufficient evidence to conclude impacts on dysregulated states, will be

included in Appendix A, which comprise an additional 28 surveys, rounding the total number of

surveys completed to 55.

Table 4.1

Raw Survey Data

Legend	
Colours	B – Blue G – Green Y – Yellow R – Red
Reasons	T- Tools S- Space V- Visual A- Aesthetic
Other notations	N/A – Not available, not filled out on survey

		Entering			Leaving		
	Date	**Zone**	**Intensity (out of 3)**	**Reasons**	**Zone**	**Intensity (out of 3)**	**+/- dysregulated state**
Participant #1	Jan 18	B,G,Y	3	S	B,G,Y	0,2	-
	Jan 19	B,Y	1,2,3	S, A	B,Y	0,1,2	-
Participant #2	Feb 3	B	3	S, A	B	2	-
	Feb 24	R	2	T, S, A	Y	3	-
	Feb 25	R	1	T, S, A	Y	3	-
	Mar 1	B	3	T, S, A	B	2	-
	Mar 2	B	3	T, S	B	3	=
	Mar 28	B	3	T, S	B	2	-
	Apr 11	G	3	T, A	G	3	=

	Entering			Leaving			
	Date	**Zone**	**Intensity (out of 3)**	**Reasons**	**Zone**	**Intensity (out of 3)**	**+/- dysregulated state**
Participant #3	Jan 18	B	*	T, S, V, A	G	*	-
	Jan 19	B	*	T, S, A	G	*	-
Participant #4	Jan 25	B	3	T, S, V, A	Y	2	+
Participant #5	Jan 18	B	*	T, S, A	R	*	+
	April 1	B, R	*	T, S, V, A	B, G	*	-
	April 7	B, Y, R	*	T, S, V, A	B, G	*	-
	April 8	B, Y, R	*	T, S, V, A	B, G	*	-
Participant #6	Jan 18	B, Y	3	T	G	3	-
	Jan 31	B, Y	*	S	G	*	-
	Feb 3	Y, G	*	T, S, A	G	*	-
	Feb 11	Y	*	T, A	G	*	-
	Feb 16	R	*	S	Y	*	-
Participant #7	Jan 18	B	2	T, S, A	G	3	-
Participant #8	No data collected						
Participant #9	Jan 18	R	3	V	Y	2	-
	Jan 18	Y	2	T	Y	2	=
Participant #10	Feb 25	B	*	A	G	*	-
Participant #11	Jan 18	B	*	S, V	G	*	-
Participant #12	No reliable data collected.						
Participant #13	Jan 20	R	*	T, S	G	*	-
Participant #14	No data collected.						
Participant #15	No reliable data collected						

The data represented in Table 4.1, reveals that calming corners are effective in reducing dysregulated states 81% of the time (refer to Table 4.3). Table 4.2 indicates the totals regarding the reasons why participants used the calming corner. Participants primarily visited the corner for personal space from peers (78%), for the available tools (70%), and for aesthetics (63%). It was less common for them to use the corner to avoid visual contact from peers (26%). What is notable is that this trend stayed consistent when accounting for all 55 data sets: personal space (71%), tools (60%), aesthetics (51%), and visual contact (38%).

It was surprising that two of the twenty-seven surveys indicated an increase in dysregulation. It is notable that in these two instances, both participants indicated a change in zone during their use of the corner, not simply an increase in the intensity scale. In participant #4, there was a change from blue to yellow zone. In participant #5, there was a change from blue to red zone. In both cases, the participants were feeling in the blue zone when they entered.

There were a few cases where emotional states were maintained. Two of the surveys indicate that two participants maintained a dysregulated state after using the calming corner. For participant #2, the maintained dysregulation was in the blue zone at the highest intensity. In conversations with the researcher, the participant revealed that they missed their parents who were away on vacation for two weeks. For participant #9, the maintained dysregulation was in the yellow zone at a level 2 intensity. There was one case where the calming corner maintained a regulated green zone state with participant #2.

Of the 22 surveys indicating a decrease in dysregulation, 5 of the surveys indicate a decrease within the same zone (23%). Alternatively, 17 of the surveys indicate a decrease in

dysregulation that changed the zone in which they were leaving the calming corner (77%). This further strengthens and exemplifies the effectiveness of a calming corner in emotional regulation.

Table 4.2

Reasons for Usage

	Tools (T)	Space from Others (S)	Avoid Visual Contact (V)	Aesthetic (A)
# of Times Reason was Selected	19/27	21/27	7/27	17/27
Percentage	70%	78%	26%	63%

Table 4.3

Impact on Dysregulated States

	Decreased Dysregulation	Increased Dysregulation	Maintained Dysregulation	Maintained Regulation
# of Surveys that Indicated CC Experience	22/27	2/27	2/27	1/27
Percentage	81%	7%	7%	4%

Note. CC refers to calming corner.

Interviews

Interviews occurred one on one with the researcher and the participant. It took place at the researcher's rainbow table in their classroom while the rest of the participants were in the library. The researcher sat in the inner arch of the rainbow table, while the student sat on the

outer arch facing away from the hallway door and towards the researcher. The room was quiet and distractions, such as hallway noise and students walking by, were limited. Participants were asked three questions: (1) How do you feel about the calming corner? (2) Which calming corner do you prefer? Why? Photo 2 has one part open to the room and Photo 3 has the option of having no sides open to the room. Which do you prefer? Why?

For the first question, the researcher aimed to elicit general responses to sentiments towards the calming corner. Table 4.4 breaks down the sentiments towards the corner. Positive remarks included the following: "great," "good," "I like it," "it calms me," "it looks nice," or in some cases kids gave a thumbs up. Neutral remarks included: "in the middle," "normal," "I don't use it because I don't need too." The negative remark stated, "I don't use it because when I'm sad I keep my feelings to myself," which highlights a discomfort with the calming corner as a coping strategy.

Figure 1

Interview Photos

Photo 1	Photo 2	Photo 3

Unknown, n.d., https://pin.it/3XLKTOR   Shubert, 2022., https://pin.it/4cF5V4b

Garraffagnino, A. n.d., https://pin.it/792l2JN

Table 4.4

General Sentiment Towards Calming Corner

	Positive	Neutral	Negative
# of Responses that Indicated Sentiment	12/15	2/15	1/15
Percentage	80%	13%	7%

For the second question, the three photos above were shown, and participants were asked to choose which one they prefer and explain why. Table 4.5 breaks down what participants selected. For Photo 1, participants made notes to comfortability, such as "I like the chair because it looks comfortable" and "it looks comfy," "it has a roof," "it's darker," "it looks more relaxing," and "it looks like my bedroom." Again, no comments on personal space or privacy were noted. For Photo 3, themes of space and privacy were noted, such as "you can have space," "nobody can see you," "there's these things [points to curtains], so you can close them," and "I like that you can put the curtains down, sometimes I need space and sometimes I don't like people seeing me in the red zone."

Table 4.5

Photo Selection

	Photo 1	Photo 2	Photo 3
# of Times Photo was Selected	3/15	6/15	7/15
Percentage	20%	40%	47%

In the final question, participants were prompted to notice the different levels of openness to the room. In Table 4.6, it breaks down the selection that participants made with

this new consideration. Six participants changed their initial response in question 2 to Photo 3 in this final question. Some of the reasonings were the following: "nobody can see me it in," "no one would see how sad you are," "because sometimes when I'm sad, I don't want people to see me," "gives me space and stuff," "if students who go to the red zone fast, closing the curtains might calm them down, because they can't see anybody and sometimes when people see others they can get mad." One participant went further into their explanation for the change and made a connection to home. Their response was the following:

Then you can have your own space. It might help you calm down quicker. Sometimes when you close everything it makes you feel secure, and you have something to sit on. When I'm mad, I run to my room and I run and close the door. I close the door because then I know people won't come in.

Notably no participant selected the first photo after posed the third question.

Participant #7 gave a first and second choice. The first choice was Photo 2, which was logged as his response, and the second choice was Photo 3. His final remark states, "Actually, the best would be if you could get two seats in this one (Photo 2) and add a curtain to it."

Table 4.6

Photo Selection with Prompt to Levels of Openness

	Photo 1	Photo 2	Photo 3
# of Times Photo was Selected	0/15	4/15	11/15
Percentage	0%	27%	73%

For all three questions, most remarks fell within the noted themes. There were two additional outstanding notes to highlight. The first is participant #14, who stated in question

one that they did not use the corner because when they get sad, they keep their feelings to themselves. This might suggest the potential worry of negative perception of peers if one were to visit the calming corner. The second outlier remark was made by participant #4, who noted in question 2 that they preferred the third photo because it had curtains and "curtains help [them] peek out and see people doing bad things," which alludes to the different natures of privacy as noted by Margulis (2003):

> Moreover, the relationships between privacy and cognate concepts (e.g., deception, secrecy, anonymity) are debatable (e.g., Margulis, this issue) because of disagreements about the boundaries of privacy as a concept. For example, many discussions of privacy emphasize it as a positive in the sense that privacy 'protects behavior which is either morally neutral or valued by society'. However, other authors view privacy neutrally because they believe privacy can also support illegitimate activities, such as misuse of a public office and vandalism, and morally dubious behavior like lying" (p. 244).

> It is notable that the alluding to this definition of privacy was only communicated by one

of the fifteen participants; therefore, it should be considered, but not in respect to the majority of responses pointing to the benefits in aiding emotional regulation.

Comparing Surveys and Interviews

There are a few points of commonality between survey and interview data. The first area is regarding the effectiveness of calming corners in reducing dysregulated states and general sentiments towards calming corners. The surveys found that the calming corner reduced dysregulation 81% of the time. Comparingly, 80% of participants had positive remarks towards the calming corner. Contrastingly, in 11% of calming corner visits, participants

maintained the regulatory state they were in upon entering the calming corner, which is like

the 13% of participants who expressed neutral remarks on sentiment towards the calming

corner. Finally, 7% of the documented experiences had an increase in dysregulation after using

the calming corner, which compares to the 7% of negative remarks in the interview data on

general sentiments. No formal correlation is made, but the trend is noted.

Another commonality between data is between primary reasons for visiting the corner

in surveys with themes of reasonings of choosing photos in question 3 of the interview. Surveys

indicate that participants primarily visited the corner for personal space from peers (78%). One

of two primary themes to come from responses to question 3 is that they needed personal

space from peers, noted in the response of seven participants (3, 4, 7, 8, 9, 13, 15).

Contrastingly, 26% of calming corner visits were used to avoid visual contact from peers, as

noted in the surveys; however, the theme of privacy was the other primary theme to come

from interview responses to question 3 from seven participants (3, 6, 10, 11, 12, 13, 14).

Connecting these common themes to already existing research is needed to further solidify or

challenge these findings.

Chapter 5: Conclusion

The purpose of this study is to observe the influence of privacy in calming corners in a

primary classroom setting. The goal is to inform educators if having access to privacy in the

general classroom for students to regulate is best practice.

Effectiveness in Decreasing Dysregulation

As explored in the current literature, calming corners help develop a positive classroom

culture and aid in emotional education (Skinner, 2020, p. 20; Thompson, 2021, p. 15). Calming

corners allow students to self-regulate with various mindfulness strategies. There has not been

copious research conducted on calming corners, yet it remains a common practice among

schools as a central location to practice mindfulness strategies (Skinner, 2020, p. 20). The

quantitative data collected in this survey supports these findings, as calming corners were

effective in reducing dysregulated states 81% of the time (refer to Table 4.3). Furthermore, of

the 22 surveys indicating a decrease in dysregulation, 5 of the surveys indicate a decrease

within the same zone (23%). Alternatively, 17 of the surveys indicate a decrease in

dysregulation that changed the zone in which they were leaving the calming corner (77%). This

highlights the scale in which a calming corner can positively impact regulation. Similarly,

qualitative data mirrored quantitative data. In interviews, 80% of responses expressed positive

sentiment towards calming corners when asked how participants felt about the calming corner.

One may argue that 80-81% does not account for all students in a classroom. Nevertheless, as

Thompson (2020) notes, "completely eliminating behaviors in the classroom may be an

unrealistic goal, but the calm down corner [does] help lessen the amount of specific behaviors

in the classroom and teach students many strategies to help calm themselves" (p. 27). Maybe agreement in the overall effectiveness of calming corners can be made, but this still does not answer the "why". Narrowing back into the purpose of investigating the role of privacy in calming corners is important to analyze.

Privacy Considerations

At first glance, when examining the quantitative data, privacy does not appear to have central role in the calming corner experience. One could conclude that the effects of privacy on regulation was not a driving factor in visiting the corner, as per surveys only 38% of students reported visiting the corner for this reason, the least selected reason on the survey. But one must also consider the qualitative data. The data tells a different story when students were presented with Question 3, "Photo 1 has all sides open to the room, photo 2 has one part open to the room and photo 3 has the option of having no sides open to the room. Which do you prefer? Why?" The responses to this question show that 0% chose photo 1 with all side open to the room, 27% selected photo with one side open to the room and 73% chose photo with option of closing off from room. Why is there a discrepancy in the data? Perhaps the design on the corner in the classroom setting for surveys did not elicit the desired level of privacy that is reflected in responses from question 3.

Figure 2

Comparing Calming Corner (CC) in Researcher's Classroom to Interview Photo 2

CC in Researcher's Class

Photo 2 in Interviews

Shubert, 2022., https://consciousdiscipline.com/free-resources/shubert/shuberts-classroom/safe-place/#examplesAs

As depicted in the photo on the left, the calming corner used in the researcher's classroom has one side open towards the room. Additionally, one of the square cut-outs did not contain a storage box, which increases visibility slightly. In essence, the corner resembled most closely to photo 2 of the interviews, which reflects the more closely related percentages of why students used the corner in the surveys (38% to avoid visual contact) to the selection of the second photo (27%) in question 3. As discussed in the literature review, the term *responsive environments* is used to describe an environment that allows for an "easy alternation between a state of separateness and a state of togetherness" (Namazian & Mehdipour, 2013, p. 109). An example of this is the concept of a door; "opening it signifies a desire for social stimulation and closing it represents a positive set/other boundary" (Namazian & Mehdipour, 2013, p. 110). Margulis (2003) further supports the need for responsive environments by stating that "privacy, as a whole or in part, represents control over transactions between person(s) and other(s), the

ultimate aim of which is to enhance autonomy and/or to minimize vulnerability" (p. 245). In this

sense, privacy links to emotional regulation as it provides the opportunity for individuals to

relax, be oneself, emotionally vent and cope with stresses in classroom settings (Margulis,

2003, p. 246). Perhaps having calming corners in a classroom that depict more the concept of

responsive environments should be considered. In essence, students have the autonomy and

accessibility to change the level of privacy in a calming corner to meet their regulatory needs.

The notion of calming corners as effective regulation strategies has been noted thus far.

Nevertheless, there were some cases in this study where the data contradicts this concept.

Increases in Dysregulation

In some cases, when students visited the calming corner, dysregulation increased. From

the quantitative data, two of the 27 complete surveys indicate an increase in dysregulation. In

both circumstances, there was a change in zone during their use of the corner, not simply an

increase in the intensity scale. In participant #4, there was a change from blue to yellow zone.

In participant #5, there was a change from blue to red zone. In both cases, the participants

were feeling in the blue zone when they entered. Both participants were male. Borelli et al.

(2019) note that "when people are emotionally vulnerable, they allow themselves to

experience and reveal feelings such as shame, loneliness, disappointment, fear, and sadness"

(p. 2727). Shame, loneliness, disappointment, and sadness all falling under blue zone states.

Many of these blue zone states fall under primary emotions. Borelli et al. (2019) distinguish

primary and secondary emotions as the following:

Primary emotions are the immediate, most fundamental emotional responses that

people experience, such as feeling sad in response to a loss, feeling fear in response to a

threat, or feeling ashamed in response to rejection or invalidation. Secondary emotions, on the other hand, are reactive, often defensive emotions that arise in response to primary emotions. For example, feeling angry is often a defense against deeper, more vulnerable feelings of sadness or fear. (p. 2728)

Borelli et al. (2019) continue to describe how such vulnerable emotions are often sought to be concealed by people to avoid negative perceptions of weakness and incompetence (p. 2727). In Western culture, males might be more likely to conceal vulnerable emotions, as it is often portrayed as a sign of weakness, which leads to a sense of shame (Borelli et al., 2019, p. 2729). This is also supported in River and Flood's (2021) research where they completed a case study on 18 male participants who attempted suicide. The results found that all 18 participants described:

A process during childhood where they came to understand that expressing emotions such as fear, distress, sadness and grief threatened masculine social standing. On the other hand, expressing emotions such as annoyance, anger and rage, which could be mobilised through acts of aggression and violence, was viewed as socially masculine and a resource for pursuing hegemonic masculinity. (River & Flood, 2021, p. 917)

In consideration of the two participants being male and entering the calming corner in the blue zone, perhaps this cultural factor played a role in them elevating to yellow and red zone states. Future research might consider gender differences in classroom calming corner experiences.

Outstanding Questions and Future Research

This study points towards the need for considering access to different levels of privacy in classroom calming corners, as qualitative data highlights the preference of having access to privacy in classroom settings. The suggestion of having *responsive* spaces in classrooms, where students can alter desired levels of privacy should be considered in classroom environment designs, as reflected in participant responses to the three interview questions. Limited research in this specific area makes it difficult to give present examples of this concept; therefore, future research might look into practical ways to implement adaptive levels of privacy in calming corners. Perhaps a curtain, as depicted in Photo 3 of the interviews, or an accordion divider might serve as an adaptive privacy feature. This would follow closely with Namazian and Mehdipour's (2013) example of a door; where "opening it signifies a desire for social stimulation and closing it represents a positive set/other boundary" (p. 110). Students coming to school from low socio-economic households enter with a diminished sense of control (Izard, 2016, p. 27). Future research could also investigate the effects of autonomy in privacy levels in calming corners on these students' emotional regulation and self-esteem, as having a sense of agency and control could relay positively in these areas. Based on the findings of this study, research could also investigate multi-levels of privacy in calming corners when collecting quantitative data to gain more insight into the level of privacy and the effect on emotional regulation in primary students. Lastly, considering the outlier results of increased dysregulation in two male participants, future research might consider gender differences in classroom calming corner experiences. Beyond the scope of environmental considerations, future research could also investigate current programs or suggested programs that specifically look

into teaching males at a younger age how to work with emotions like sadness and fear. Normalizing these emotions within this population is essential considering that 75% of annual suicide rates are within the male population (River & Flood, 2021, p. 911).

Benefits of the Calming Corner

Although current literature expresses a lack in empirical evidence on classroom calming corners, educators continue to implement them in their classrooms as central locations to practice mindfulness strategies (Skinner, 2020, p. 20). This study added to current research by supporting educators' intuitions that calming corners are effective in promoting healthy self-regulation practices. The quantitative data collected supports these findings, as calming corners were effective in reducing dysregulated states 81% of the time. Similarly, qualitative data mirrored quantitative data. In interviews, 80% of responses expressed positive sentiment towards calming corners when asked about general sentiments. Additionally, calming corners being a central location for mindfulness tools and techniques is an added benefit (Skinner, 2020, p. 20). This study also points towards the calming corner being a practical space to implement elements of privacy in the general classroom, alongside the considerations of access to different levels of privacy. This is reflected in the qualitative data, as it highlights the preference of having access to privacy in classroom settings. The suggestion of having *responsive* spaces in classrooms, where students can alter desired levels of privacy should be considered in classroom environment designs, as reflected in participant responses to the three interview questions. Complimentary to concepts of privacy, the calming corner fosters a space for students to *save face* when experiencing dysregulation (Izard, 2016, p. 27). Lastly, calming

corners foster agency in students as they have options in where and how they wish to regulate their emotions.

Limitations

Limitations to this study include only using one level of privacy in the quantitative data experience. The calming corner that was used as part of the survey collection was closest in design to Photo 2 in the qualitative data set, which only 27% of responses indicated that photo as the most desirable level of privacy. Secondly, the student sample is a convenience sample from the researcher's classroom, therefore meticulous selection did not occur. Additionally, the student sampling is relatively small, as of 18 possible participants only 15 families consented. Lastly, the data was collected over 4 months. These factors could lead to the conclusion that generalizability is compromised. As defined by Mertens (2020), "generalizability refers to the researcher's ability to generalize the results front the same to the population from which it was drawn" (p. 4).

Recommendations

Based on the results of this study and current literature, the implementation of a calming corner is beneficial to students' emotional regulation. Setting up a calming corner does not have to be a strenuous task. When searching for an optimal space, utilizing a corner would help provide the basic beginning structure for privacy. For additional privacy features, one could consider implementing furniture, such a shelving unit to help with both visually creating boundaries, but also adds to the level of privacy. Since the data alludes to creating responsive environments for autonomy in different levels of privacy, incorporating elements such as curtains, or an adjustable accordion divider could serve such a purpose. It is noteworthy to

consider safety, as the classroom teacher is responsible for students' safety; therefore, including adaptable elements that are generally shorter in height would provide shield from a young student's line of sight, but would still allow an adult to have visual access to the corner.

Other considerations might be light and texture. Ambient lighting can help stabilize higher levels of emotional dysregulation with emotions such as anger (Veenstraa & Koole, 2018, p. 38). Consequently, providing opportunity for lower levels of lighting would be helpful in regulating Yellow Zone and Red Zone states. Nevertheless, if students are entering in a Blue Zone state where they are low in energy to begin with, brighter levels of light could help bring alertness. This again alludes to the concept of responsive environments, where environments are adaptable to fit individual needs. Therefore, having a lamp or different lighting accessories in the calming corner would be a responsive environment, as students could either turn it on or off based on their current needs. In terms of textures, providing different textures not only could meet emotional regulation needs, but also sensory needs in different sensory seeking students. Soft, velvet, and fuzzy textures might elicit feelings of relaxation and calmness. This can be considered in the furniture, but also in a sensory texture board, where many different textures are glued onto a panel.

Mindfulness tools are often an integral piece to a calming corner. Mindfulness has been found to "change the structure and electrical activity in our brain in positive ways to help counteract what has been done by stress and poor mental health" (Skinner, 2020, p. 20). As current research supports mindfulness tools and techniques made available in calming corners, it would be wise to incorporate these elements within the space. Tools could include breathing

visuals, weighted vests, bubble timers, puzzles, soft or weighted blankets, calming images, noise cancelling headphones, or simple colouring pages to name a few.

In the end educators are tasked to create least restrictive environments, as mandated through The Individuals with Disabilities Education Act (IDEA). It can be overwhelming to consider the multidimensional needs of 20 to 30 students in a classroom, particularly when higher order thinking is only capable of functioning when the brain is regulated (Izard, 2016, p. 13). The implementation of a calming corner, with privacy, lighting, textile, and mindfulness considerations, gives educators the best chance to provide a space where students have autonomy and choice in their regulation processes, which then enable them to effectively participate in the academic and social learning that takes place. Moreover, these environmental considerations are part of promoting healthy emotional regulation which could play an integral role in slowing down or preventing the rise in mental health rates amongst children and adolescents.

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Appendix A

All Surveys (Complete and Incomplete Sets)

	Entering			Leaving			
	Date	**Zone**	**Intensity (out of 3)**	**Reasons**	**Zone**	**Intensity (out of 3)**	**+/- dysregulated state**
Participant #1	Jan 18	B,G,Y	3	S	B,G,Y	0,2	-
	Jan 19	B,Y	1,2,3	S, A	B,Y	0,1,2	-
Participant #2	Feb 3	B	3	S, A	B	2	-
	Feb 24	R	2	T, S, A	Y	3	-
	Feb 25	R	1	T, S, A	Y	3	-
	Mar 1	B	3	T, S, A	B	2	-
	Mar 2	B	3	T, S	B	3	=
	Mar 28	B	3	T, S	B	2	-
	Apr 11	G	3	T, A	G	3	=
Participant #3	Jan 18	B	*	T, S, V, A	G	*	-
	Jan 19	B	*	T, S, A	G	*	-
	Jan 21	*	*	T, S, A	*	*	?
	Jan 31	B	*	T, S, V, A	B	*	?
	*	B	*	T, S, V, A	B	*	?
Participant #4	Jan 25	B	3	T, S, V, A	Y	2	+
Participant #5	Jan 18	B	*	T, S, A	R	*	+
	April 1	B, R	*	T, S, V, A	B, G	*	-
	April 7	B, Y, R	*	T, S, V, A	B, G	*	-
	April 8	B, Y, R	*	T, S, V, A	B, G	*	-

Participant	Date						
	Jan 18	B, Y	3	T	G	3	-
	Jan 31	B, Y	*	S	G	*	-
	Jan 31	B	*	T, S, A	*	*	?
	Feb 3	Y, G	1	T, A	*	*	?
	Feb 3	Y, G	*	T, S, A	G	*	-
Participant #6	Feb 4	Y, G	*	T, S, A	*	*	?
	Feb 7	Y	*	T, A	*	*	?
	Feb 9	Y	2	T, S, V	*	*	?
	Feb 11	Y	*	T, A	G	*	-
	*	Y	*	T, S	*	*	?
	Feb 16	R	*	S	Y	*	-
Participant #7	Jan 18	B	2	T, S, A	G	3	-
Participant #8	No data collected						
	Jan 18	R	3	V	Y	2	-
	Jan 18	Y	2	T	Y	2	=
	Jan 18	*	2	T	*	1	?
	Jan 19	*	2	T	*	1	?
	Jan 20	*	2	V	*	1	?
	Jan 21	*	2	S, V	*	3	?
Participant #9	Jan 21	*	2	T, A	*	3	?
	Jan 25	*	2	S	*	1	?
	Jan 27	*	2	S, V	*	2	?
	Jan 28	*	2	T, S, V, A	*	2	?
	Jan 31	*	3	S,V	*	3	?
	Feb 7	*	2	V	*	2	?
	Feb 16	*	3	S, V	*	2	?

	Mar 1	*	*	V	*	*	?
	*	*	2	S	*	2	?
Participant #10	Jan 21	B	*	T	B	*	?
	Feb 25	B	*	A	G	*	-
	Mar 28	B	2	S, V	*	*	?
	?	R	*	S	R	*	?
Participant #11	Jan 18	B	*	S, V	G	*	-
Participant #12	Jan 20	G	*	T, S, V, A	G	*	?
Participant #13	Jan 20	R	*	T, S	G	*	-
	Feb 22	B	*	T, S, V	B	*	?
Participant #14	No data collected.						
Participant #15	Jan 31	R	3	A	*	*	?