FROM RED TO GREEN: A MIXED METHOD STUDY ON PERCEPTUAL AND PRACTICAL CHANGES RELATED TO REMOVING FEAR-BASED PUNISHMENT IN UGANDAN SCHOOLS

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DEDICATION

To anyone who's ever felt belittled by the system; to those who use their authority to lessen others - I hope you can find redemption and healing.

Most of all, to my dad, who relentlessly demonstrated humility and love in his leadership.

ABSTRACT

Child maltreatment in the form of physical and emotional abuse or neglect remains a common occurrence globally, notably as a form of disciplinary action (Butchart & Mikton, 2014; WHO, 2019). However, research demonstrates negative effects on children when exposure to practices that eliminate emotionally and physically safe environments (Leeb, Lewis, & Zolotor, 2011; Vachon et al., 2015), notably in the context of schools (Gershoff et al., 2019; Orgando & Pells, 2015; Talwar et al., 2011). With this theory as an influential construct, the current study sought to explore the impact on teachers' beliefs and practices when learning a safe approach to education, relative to their use of corporal punishment as one of other fear-based tactics. Ugandan schools culturally accept corporal punishment as a disciplinary method, and therefore became the platform for this study to occur. The Stoplight Approach was selected as the intervention because of its holistic approach, aligning with the strategic criteria for change proposed by WHO (2019). Additionally, it acknowledges the inadequacy of corporal punishment and other fear-based strategies, promoting safer methods.

As the focus of this study was to investigate potential changes of teacher's educational beliefs and practices when introduced to the SA, and understand why they may or may not have occurred, a mixed method approach was utilized. Data was collected in the form of surveys across three separate data points (Surveys A, B, and C) and concluded with selective participants undergoing semi structured interviews. The analysis of these findings was regarded as vital to the guidance of interventions to promote safe school environments.

Though the quantitative data analysis showed no statistical significance due to limited data as a result of participant drop out, the exploration of the data through

descriptive and statistical analysis revealed common themes in beliefs and practices of teachers following the intervention training and implementation that were not expressed prior to the study. Neuro-informed philosophies were articulated, and practices reportedly employed. Teachers claimed to be utilising safe practices in the classroom while also minimizing unsafe ones. The student-teacher relationship was described to be mutually respectful, involving shared conversations, encouragement, and explanations. Teachers also portrayed modified educational philosophies towards student learning that involved differentiated learning in the classroom, thus prioritizing student needs over lesson completion. To manage student behaviours, teachers identified the importance of developing connections with students while simultaneously removing the focus of invoking fear in students.

Additionally, the elements that teachers believed to be effective and ineffective in promoting change in their understanding and implementation of the Stoplight Approach was explored through open-ended survey questions and the interview. It was discovered that aspects which were deemed motivational for change also were recognized as drawbacks. Elements including the innovativeness of the philosophy, the multi-stakeholder collaboration, and the personal applicability of the approach for both teachers and students that was provided by the Stoplight Approach were acknowledged by participants as having both pros and cons.

ETHICS STATEMENT

Work described in this thesis received research ethics approval from the University of Lethbridge Human Participant Research Committee (HPRC), “FROM RED TO GREEN: A MIXED METHOD STUDY ON PERCEPTUAL AND PRACTICAL CHANGES RELATED TO REMOVING FEAR-BASED PUNISHMENT IN UGANDAN SCHOOLS”, No. 2021-056, MAY 26, 2021.

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I conquered. Just as my Dad knew I could.

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CHAPTER ONE: INTRODUCTION

Childhood maltreatment is shown to be a robust predictor of psychological disorders during adolescence and into adulthood (Cicchetti & Valentino, 2006; Hankin, 2005; Harkness et al., 2006; Kim & Cicchetti, 2010). Child maltreatment, as defined by Leeb et al. (2011), includes neglect, or any act of physical, sexual, or emotional abuse. Corporal punishment is a long-standing and familiar form of child maltreatment across many cultures used as a disciplinary strategy within homes and schools (Evans et al., 2012; World Health Organization [WHO], 2020). According to the WHO (2019), corporal punishment remains the primary form of discipline in homes, communities, and schools globally. Within the United States, the use of corporal punishment has led to years of research on the effects that child maltreatment has on a child's physical, emotional, social, and psychological development. A substantial body of literature demonstrates a correlation between corporal punishment and emotional damage (Dobbs, 2007; Gershoff et al., 2019; Hecker et al., 2014; Orgando & Pells, 2015), aggressive behavior (Dubanoski et al., 1983; Hoglund & Leadbeater, 2007; Naz et al., 2011), and poor academic performance (Gershoff et al., 2019; Orgando & Pells, 2015; Talwar et al., 2011). Additionally, research demonstrates that witnessing or experiencing violence in schools can instigate negative externalizing behaviors at school and hinder a student's learning (WHO, 2019). These outcomes are shown to have effects on development in both the short-term and long-term (Butchart & Mikton, 2014; Gershoff, 2010; Kotulak, 2008; Moffit, 2003; Johnson & Nelson, 2000; Olson et al., 2011; Perry, 2006; Straus, 1994; Tremblay, 2000; Tiecher et al., 2003). While use of corporal punishment in North

America has been considerably reduced in the last 20 years, it remains one of the most commonly used forms of child discipline in many developing countries (WHO, 2019).

In many developing countries, high rates of child maltreatment are still present (WHO, 2019). For example, in Uganda, corporal punishment is still a widely accepted and common practice in local schools. A significant portion of the violence experienced within the school system indicates teachers as the main source of violence. In a movement to reduce violence against children, an amendment was added to the Children Act (1997) in Uganda in March 2016 addressing corporal punishment in schools stating,

> (1) A person of authority in institutions of learning shall not subject a child to any form of corporal punishment. (2) A person who subjects a child to corporal punishment commits an offence and is liable to imprisonment for a term not exceeding three years or to a fine not exceeding one hundred currency points or both.

Despite this new amendment identifying corporal punishment as illegal within schools, it remains prevalent today (Heekes et al., 2020). In addition, it can have severe and lasting consequences for children across a number of domains, including mental health problems such as externalizing behaviours and disorders (Ani & Grantham-McGregor, 1998; Bamber & McMahon, 2008; Calvete, 2014). This suggests as a child discipline practice, utilizing corporal punishment may actually exacerbate behavioural problems instead of eliminating them. It also has been demonstrated to negatively impact academic work (Devries et al., 2014), therefore undermining the ability for schools to carry out their intended purpose of educating children.

As a developing country, Uganda's high poverty rates, rigid gender roles, and generalized cultural acceptance of this phenomenon enhance the country's susceptibility to the pervasiveness of corporal punishment (Butchart & Mikton, 2014). Ugandan society places considerable respect and importance on authority figures, as a result, children in Uganda experience a lack of rights and are often dismissed as uncredible. This is often the case within classrooms where teachers are held in high regard (Dietz, 2000). As highlighted previously, a significant amount of research supports the need for integrating new school interventions, such as the Good Schools Toolkit within local Ugandan schools (Gershoff, 2017). The Good Schools Toolkit is a school intervention piloted in Luwero, Uganda, led by teachers, students, and community members, designed to shift the culture of schools away from violence (Kyegombe et al., 2017). Despite seeming to demonstrate a decrease in corporal punishment upon assessment, the longevity of these changes was not sustained. In addition, there were other forms of child maltreatment overlooked. It can be hypothesized that strictly targeting the violence does not address the social system supporting the behaviour of corporal punishment. To revolutionise the effect of a violence prevention program, an intervention must look at the behaviour in the system. Removal of corporal punishment may still permit an unsafe environment involving unequal relationships where other forms of maltreatment can occur, be it peer-to-peer or teacher-to-student engagements.

Research repeatedly reveals the need for mediation for children who are victims of child maltreatment (Butchart & Mikton, 2014; Finkelhor et al., 2005; Gershoff, 2010; Janosz et al., 2008; UNICEF, 1989; WHO, 2019). However, interventions that focus solely on eliminating spanking or hitting without changing any other components, such as

verbal abuse, threats, or shaming, are likely to overlook the mechanism that makes this technique so harmful. Students who are emotionally abused are also living in an unsafe environment which causes distress similar to that of violence (Bamber & McMahon, 2008; Breen et al., 2015; Dobbs, 2017; Feinstein & Calvete, 2014; Mwahombela, 2010). Corporal punishment inflicted by an authority figure, such as a parent or a teacher, is designed to impart fear onto the individual of lesser authority (Bamber & McMahon, 2008) and affirm a power differential. An exaggerated fear response has been linked to many of the negative long-term health outcomes associated with corporal punishment. This suggests that the fear response is potentially mediating the effects of corporal punishment. In this vein, it may be necessary to employ an intervention that surpasses solely the removal of physical pain to acknowledge the underlying emotions and psychological processes that may occur simultaneously.

While ample research has been conducted supporting maladaptive developmental outcomes from repeated exposure to violence, (Bamber & McMahon, 2008; Brackett, et al., 2011; Calvete, 2014; Harkness et al., 2006; Cicchetti & Valentino, 2006; Hankin, 2005; Kim & Cicchetti, 2010), there is a gap in the literature identifying how other forms of child maltreatment are also damaging when used as a disciplinary strategy in schools. Regrettably, according to the WHO (2020), the majority of interventions being tested and implemented in schools focus solely on the elimination of physical abuse without addressing the other underlying psychological and fundamental mechanisms. They conducted and analyzed studies in this area, determining emerging evidence to suggest that safe environment approaches encompassing both emotional support and bodily safety have the greatest potential for achieving sustainable gains. This includes seven strategies

following the acronym INSPIRE, “Implementation and enforcement of laws; Norms and values; Safe environments; Parent and caregiver support; Income and economic strengthening; Response and support services; and Education and life skills.” Providing children with an environment where they feel supported, heard, and respected is predicted to address the systemic problem within this societal structure. It could then act as a preventative and maintainable method to ensure reduction of violence against children. An intervention that follows a holistic approach as outlined by the WHO (2020) for implementing change would therefore be advantageous. Currently, many interventions fail to use a holistic approach (DeVries et al., 2015), with the question still remaining on the efficacy of a holistic intervention strategy to promote healthy learning and child development. In summary, research visibly demonstrates the removal of corporal punishment as a vital part of increasing a child’s overall success. It is hypothesized that an intervention that addresses corporal punishment at the root-level is essential for proper change and long-term sustainability (Dubanoski et al., 1983; Flannery et al., 2004; Gershoff, 2017; 2019).

Research Questions

The purpose of the current research study is guided by one primary question: Through self-reported measures, how did the Stoplight Approach 101 impact teachers’ beliefs and classroom practices related to the value of reducing corporal punishment in schools? To explain the primary question further, a secondary question will be explored: From the participants’ perspective, what elements of this approach were effective or ineffective in promoting change in their understanding and implementation of this philosophy into their schools?

Guiding Principles and Significance

As an underlying foundation to this study, two guiding principles are significant in this work. The first principle acknowledges the inherent difference between teacher beliefs and the execution of these beliefs in the classroom environment. Research suggests that teacher's expressed beliefs do not always translate into their classroom practice (Wen et al., 2011; Wilcox-Herzog, 2002). Teacher's classroom practices are more aligned to their beliefs when self-reported measures are used than classroom observations (Charlesworth et al., 1993). In addition, teacher training programs that address educational theory and evidence-based content in a meaningful way with teacher attitudes and beliefs show increased levels of effectiveness (Wen et al., 2011). Hence, it is important to recognize that teachers' reported practices may not always mirror their beliefs, despite holding beliefs that endorse these principles (e.g., Freeman et al., 1988). Even though teachers may express certain beliefs that align with certain principles or guidelines, their actual practices in the classroom may not always reflect these beliefs. This understanding is crucial when collecting and analyzing data because it implies that there might be additional factors influencing teachers' practices beyond just their stated beliefs. Since the current study relies solely on self-reported measures, it's essential to understand that these results represent perceptions rather than definitive indicators of actual changes, both in practice and philosophy.

The second principle is that teachers are one part of an integral organization that is the education system. For this study, teachers are identified as the agents of change in a student's experience. It is apparent that teachers inevitably have an influence on students' learning experiences as they naturally create a culture that reflects their individual beliefs

and behaviours. However, teachers can only deviate so much within the guidelines of their institution. A teacher's individual flexibility for change can be highly impacted by the larger education system and the people involved. As a result, this study also considers external factors in determining the nature in which change occurred within and across participants. It is this researcher's belief that for true change to occur, it will take the involvement, and buy-in, of the stakeholders at all levels of such an already established institution.

CHAPTER TWO: LITERATURE REVIEW

Child Maltreatment

Child maltreatment occurs globally yet has critical short-term and long-term effects on its victims. As defined by the WHO (2014):

> Child maltreatment is any form of abuse and neglect that children experience under the age of 18 years, inclusive of physical and/or emotional ill-treatment, sexual abuse, neglect, negligence and commercial or other exploitation, which may result in harm to the child's health, survival, development, or dignity in a relationship representing responsibility, trust, or power. (p. 82)

Evidence suggests that many children cross-culturally have been exposed to child maltreatment as defined. According to international studies, one in four adults report having been physically abused as a child, and one in five women and one in thirteen men report having been sexually abused as a child (Butchart & Mikton, 2014). Interpersonal violence affects millions of children globally, with up to fifty percent of all children below 18 years of age having been affected by physical, sexual, or emotional abuse within the past year (WHO, 2019). Societal factors that increase the risk of child maltreatment are the social, economic, health, and education policies which lead to poor living standards and inequality (Butchart & Mikton, 2014). Societies that normalize or idolize violence towards others, encourage the use of corporal punishment, have rigid gender roles, or devalue the child in the adult-child relationship, increase the susceptibility of children to maltreatment (Butchart & Mikton, 2014). The WHO (2019) suggests that maltreated children are at increased risk for negative behavioral, physical and mental health outcomes. These negative health outcomes include committing or being a victim of violence, having depression, smoking, being obese, engaging in high-

risk sexual behaviours, having an unintended pregnancy, alcohol and drug misuse, and developing chronic diseases (WHO, 2019). In addition, this can also result in social problems such as educational under-achievement and further violence and crime (WHO, 2020). According to the WHO global status report (2020), an estimated one of two children between the ages two and 17 experience some form of violence each year. One third of students of ages 11-15 had experienced bullying from their peers within the last month. In this vein, emotional violence is also present, affecting an estimated one in three children (WHO, 2020). Country leaders worldwide expressed that despite existing laws against child maltreatment, there is a need for increased violence protection measures. One barrier to implementing greater violence protection mechanisms on a national level is the limited funding in these countries. (WHO, 2020). This demonstrates that support in this area is limited at this time, especially for those countries having poor economic status.

Corporal Punishment

The short- and long-term effects of child maltreatment have been extensively addressed throughout the literature within the last two decades (Leeb, Lewis, & Zolotor, 2011; Vachon et al., 2015). Child maltreatment is inclusive of physical abuse, sexual abuse, emotional abuse, and neglect. Of these listed, corporal punishment has been a commonly adopted form of discipline in many homes and schools cross-culturally. Corporal punishment functions to inflict pain as a way to decrease the behavior that precedes it. It is classified as a form of positive punishment as it presents an undesired event or outcome in an attempt to decrease the undesired behavior (Hineline & Rosales-Ruiz, 2013). For example, when a child's actions are unwanted or bad, an aversive

stimulus would be applied, such as hitting the child, in an attempt to eliminate that behaviour. When asked about relationships with caregivers, children exposed to corporal punishment often identified punishment as the key characteristic, showing the significant impact these events have on children (Breen et al., 2015).

Child maltreatment has been linked to several maladaptive health outcomes in the United States (Straus, 1994). For children in particular, experiencing violence can cause detrimental damage to one's physical and psychological development and hinder a child from performing optimally (WHO, 2019). An article by Gershoff (2010) summarizes current research on the intended and unintended outcomes of corporal punishment on children, suggesting that more harm than good is the result. Negative associations between corporal punishment and eleven other variables suggest that corporal punishment is associated with a range of undesirable outcomes. The variables assessed included aggression, delinquent and antisocial behavior, diminished quality of the parent-child relationship, child mental-health problems, physical abuse of the child, adult aggression, adult criminal and antisocial behavior, adult mental-health problems, and adult abuse of one's own child or spouse (Gershoff, 2010). Corporal punishment is also linked to other negative impacts; for example, a recent global study connected the consequences of using corporal punishment to diminished lifetime physical and mental health, as well as negative social and occupational outcomes (Butchart & Mikton, 2014). Victims of violence demonstrated an increased likelihood of unemployment and absenteeism, along with decreased acquisition of life skills such as communication, emotion management, conflict resolution, and problem solving (WHO, 2019)

Underlying Components of Corporal Punishment

Corporal punishment has been commonly used in homes and schools as a disciplinary strategy with children, with the intention that children will learn to reduce unwanted behaviors through avoiding the adverse stimulus of pain (Hineline & Rosales-Ruiz, 2013). However, it is proposed that the same components that make harsh disciplinary strategies with children so effective for behavioural modification are also contributors to the adverse detrimental impact it has on cognitive ability and executive functioning. Corporal punishment appears to have detrimental effects biologically and functionally that have the potential to extend long term (Perry, 2006). Not only does corporal punishment cause physical harm, but also psychological and biological harm (Tiecher et al., 2003). Due to the notable changes in the brain, learning difficulties, negative cyclic nature of the behaviour, and long-term mental outcomes, this study aims to explore the underlying factor that may be contributing to the negative effects of child maltreatment.

Biological Effects on the Brain

Early environmental experiences are shown to directly impact brain development (Johnson & Nelson, 2000). Maltreatment or exposure to violence as a child is suggested to have these various identified negative outcomes due to presenting as a stressor (Kotulak, 2008). Experiencing or witnessing violence can elicit fear, which can increase stress levels and cause a release of hormones and changes in the brain (Perry, 2001). Experiencing high chronic stress, modifies the development of the brain in children on a more permanent basis (Kotulak, 2008). The stress response of children can be activated in response to feeling unsafe and insecure, as often determined with the protection from an

adult or caregiver, or lack thereof (Shonkoff et al., 2009). According to Shonkoff et al. (2009), this places children at risk for stress-related disease and even cognitive deficiency.

Early stress effects are critical in the neurodevelopmental processes of the brain, especially during sensitive periods (Anderson et al., 2008; Mueller & Tronick, 2019; Nelson, 2000). Early stress is shown to be related to structural (De Bellis, 2001; Glasser, 2000) and functional (Perry, 2006) development. Neurobiological deficits include reduced corpus callosum size, attenuated development of the left neocortex, hippocampus, and amygdala, increased electrical irritability in limbic systems, and decreased functional activity of the cerebellar vermis (Tiecher et al., 2003). Functionally, deficits in these areas of the brain are associated with impaired developmental processes. The hippocampus is understood to be critical in memory, disassociation, anxiety, and impulsive behaviour. The amygdala is crucial in fear conditioning, controllability of behaviors relating to aggression, speech, sexuality, impulse violence, emotional memory, learning non-verbal motor patterns, and the fight-or-flight response (Tiecher et al., 2003). The amygdala is also proposed to have significant impact on the development of Post-Traumatic Stress Disorder (Tiecher et al., 2003). The flow of information between the two hemispheres of the brain via the corpus callosum has also been shown to be affected by early childhood abuse or early stress (Tiecher et al., 2003). This brain modification has consequences on behaviours, such as increased predictability in traits related to anxiety and antisocial personality disorder (Anderson et al., 2008; Tiecher et al., 2003). Lastly, the cerebellar vermis, which is involved with attention, language, cognition and affect abilities was decreased in size due to cognitive, linguistic, social behavioral and

emotional disruptions. This is proposed to be related to psychiatric disorders, mediating the stress response and blood flow in the brain (Tiecher et al., 2003).

Alterations in the brain due to early maltreatment have shown to be similar to neuroadaptations related to survival abilities and success in a high stress environment; however, these adaptive functions may not be optimal for success when stress is absent and appear rather maladaptive (Teicher et al., 2003). In addition, this brain alternation comes at a risk of developing serious medical and psychiatric disorders (Teicher et al., 2003).

Decreased Learning Opportunities

During developmental years, a child's understanding of themselves and others rapidly changes. Throughout these developmental stages it is essential to provide children with numerous opportunities to learn behaviours that are adaptive to their world. This life skill development is an important process for healthy adaptations for success within society. It is proposed that with the use of corporal punishment as a disciplinary tactic, these opportunities for learning critical life skills are reduced, specifically in the area of emotional regulation and problem solving.

Self-Regulation Abilities. During the developmental years, self-regulation of big emotions is an emerging skill that is typically not achieved until later in life, and a lack of these skills can impact students' ability to learn. Self-regulation is generally defined in the field of developmental science as relating to a temperament of an individual that

allows them to moderate their arousal, attention, emotions, behaviour, and cognition in adaptive ways (Beeghly et al., 2016). As one's understanding of themselves and others rapidly changes during childhood, children ideally learn this skill through modelled learning from adults as an ongoing experience. A study by Tremblay (2000) demonstrated that aggressive impulses reportedly subsided through modelled learning of emotional regulation. In addition, when children were provided the opportunity to learn and develop self-regulation, social maladjustment appeared to decrease . Remarkably, Perry (2006) also noted how self-regulation of emotions is suggested to be a significant component of adaptive behaviours and engagement in higher executive functioning. Findings such as those of Tremblay and Perry reinforce the developing theory that an individual's self-regulation abilities impact their success in society.

However, through the use of corporal punishment, self-regulatory learning opportunities are restricted, limiting the establishment of this skill in childhood. Without this skill, children are inclined to act out of emotion rather than objectivity. Research is suggesting that externalizing problems through aggression may reflect a child's inability to self-regulate (Moffit, 2003). For example, a study using self-reported measures demonstrated that children desire to respond aggressively when targeted with aggression (Olson et al., 2011). This study also discovered that the presence of physical punishment led children to be poorer problem solvers having poorer anger management and self-management skills. As corporal punishment elicits additional emotional internal responses related to fear, such as sadness, anxiety, or shame, the impulse to react on these emotions is predicted to extend into adulthood, creating maladaptive thinking patterns and increased distress or trauma experiences later in life (Bamber & McMahon, 2008;

Calvete, 2014). When children are left to develop emotional regulation strategies in the absence of an appropriate caregiver capable of meeting their needs, maladaptive coping strategies may develop instead. Therefore, exploring an intervention against violence that provides an alternate approach to discipline, and focuses on the development of self-regulation skills when faced with adversity, can teach children how to respond in an adaptive way, decreasing cognitive and behavioural problems.

Notably, behavioural management strategies that promote violence eliminate the opportunity for adults to model or teach self-regulation. In addition to the experience of pain, emotional discomfort is also believed to be present. Violence has been shown to evoke unpleasant feelings, such as fear, anxiety, and anger (Breen et al., 2015), and is frequently associated with feelings of humiliation and embarrassment (Feinstein & Mwahombela, 2010). Therefore, with the application of physical punishment, students are left to manage the subsequent emotional disturbances on their own, without a teacher or a caregiver to guide them through the process, thus limiting their ability to develop adaptive behaviours.

Compliance. In addition, corporal punishment can be used as a form of control. It's commonly used by those in power or perceived authority, like teachers in schools, as a method to dominate. This power differential demands compliance in children, modifying unwanted behaviour to avoid adverse punishment, rather than for learning emotional self-regulation and internalization of rules and expectations (Gershoff, 2002; Hoffman, 2000; Straus & Paschall, 2009). Through use of corporal punishment, passivity in children is implicitly encouraged over the development of adaptive skills. It leads to decreasing moral internalization opportunities and limiting problem solving skills (Olson

et al., 2011;Tozer, 2010), conflict resolution skills (Gershoff, 2002), and poorer anger management and self-management skills (Olson et al., 2011). Markedly, conflict resolution skills are associated with the later detrimental outcomes of increased aggression, lower levels of moral internalization, and reduced mental health (Gershoff, 2002).

Cognitive strategies and verbal explanations. Cognitive methods, such as emotional supportiveness and explanations, have shown promising findings, during behavioural corrections. When caretakers are to engage in explanations about consequences for the unwanted behaviour, and reasonings for the desired behaviour, these verbal interactions between adult and child have shown additional positive effects on learning. Research also suggests a positive association between neural connections in the brain, and cognitive ability in children, when adults engage in conversation with them (Bernier et al., 2010; Dawson & Fischer, 1994). This was demonstrated when comparing discipline strategies of reasoning to power-assertion; in the long-term, a child's ability to accept and internalize was heightened when cognitive strategies such as reasoning were used (Grusec & Goodnow, 1994). With power-assertion strategies, decreased levels of self-control in children were identified (Grusec & Goodnow, 1994). The verbal exchange, when used to affirm a power differential during punishment through threats and shaming, may reinforce compliance in children (Berlin et al. 2009). Compliance, as a reflection of reduced use of critical thinking skills, is suggested to continue throughout life as these children become adults (Gershoff, 2002). Notably, with the use of corporal punishment, it is less likely that cognitive methods will be used with children (Straus & Paschall, 2009). Therefore, it is theorized that an intervention that integrates increased positive language

relating to reasoning and explanations would demonstrate reduced negative effects on children when compared to corporal punishment tactics.

Emotional support. Emotional supportiveness has also been shown to have effects on child development and learning. When a verbal explanation that occurs during behavioural correction demonstrates emotional support and responsiveness from the caregiver, the child is less likely to perceive it as negative, and it is more likely perceived to be supportive (Berlin et al., 2009). This emotional supportiveness is linked to increased emotional connection between caregiver and child, leading to higher levels of altruism within children (Berlin et al., 2009). Altruism within children was also lower in those with low empathetic mothers than those with mothers that demonstrated higher levels of empathy (Zahn et al., 1979). Maternal empathetic caring, and verbal explanations as management of a child's misbehaviour, was a predictor of prosocial behaviours in the child (Zahn et al., 1979). Other studies have provided support that adult modelling of sharing, helping and comforting, contribute to developing altruism within children (Perry 2001; Rosenhan & White, 1967; Staub 1971; Yarrow et al., 1973). Power and preaching styles of teaching strategies, however, have yielded unpredictable evidence of altruism within children (Bryan & Walbek, 1970; Gruzec & Skubikski 1970, Rushton, 1975). Therefore, it is theorized in this research study that increasing prosocial behaviours over child compliance can be beneficial to child development and their integration within society.

Effects of Corporal Punishment in Schools

In societies that historically embrace corporal punishment, its use often extends beyond the home and into the educational setting. However, students who experience or

witness violence at school demonstrate an increased risk for maladjustments (Janosz et al., 2008). Consequences related to the use of corporal punishment in school is that of students disliking school and school avoidance. In line with previous studies, it is suggested that violence can generate feelings of powerlessness, fear, and insecurity, leading to primitive survival response behaviours rather than the higher functioning responses needed for learning (Janosz et al., 2008). In addition, exposure to violence at school, even simply the act of witnessing it, notably decreases well-being, and increases the likelihood for aggressive behaviour. Even more detrimental, studies have associated childhood abuse with vulnerability to negative long-term outcomes, such as psychiatric disorders and behavioural problems (Edwards et al., 2003; Teicher et al., 2003). Lansford et al. (2011) also found that physical punishment significantly predicted antisocial behaviours.

Evidently, implications of school violence is a public health and safety issue. The study by Janosz et al. (2008), aligned with WHO (2019) in revealing the necessity for a comprehensive approach to prevent violence in a community, such as that of a school, when implementing prevention strategies (Janosz et al., 2008). With a comprehensive approach, all individuals of the community are being considered, not just the directly visible victims This places schools in a vital position to address child maltreatment and students' exposure to violence in particular. Despite limited research, these particular studies on violence in schools have focused on the correlated effects corporal punishment can have on students. Therefore, a closer analysis of associations between corporal punishment in schools and student outcomes are discussed in the following sections.

Emotional Damage

Studies associate student emotional damage to those students who have been exposed to violent punishment strategies in school. One critical ability that can be impaired due to exposure to violence is that of one's ability to empathize. According to Hecker, Hermenau, Isele, & Elbert (2014), the ability to, and action of, helping others appeared to be negatively affected by students exposed to violence . Through interviewing 400 primary students, this study in Tanzania linked corporal punishment in schools with lowered empathetic behavior. It also identified prosocial behavior to be correlated negatively with corporal punishment. Student self-regard and self-confidence also appeared hindered in specified ways across the following studies. A *UNICEF Young Lives* report showed lower self-efficacy and lower self-esteem 4 years later in students who had been corporally punished (Orgando & Pells, 2015). According to Dobbs (2007), emotional injury such as anxiety, sadness, and an avoidance of help-seeking behaviors, was correlated with schools utilizing corporal punishment. Likewise, witnessing violence or victimization has been shown to also relate to symptoms of internalizing problems, like depression and anxiety when assessed across three studies (Flannery et al., 2004; Janosz et al., 2008; Mrug & Windle, 2010). An additional study in the United States analyzed corporal punishment in public schools, showing students who had experienced it had higher current depressive symptoms (Gershoff et al., 2019; Csorba et al., 2001; Naz et al., 2011). In cases of such internalized problems, best practice includes a significant amount of emotional support (Olson et al, 2011). Therefore, it is suggested that providing emotional support within these contexts, while also removing corporal punishment, may help decrease these negative effects as described.

Aggressive Behavior

When using physical punishment to reduce unwanted behaviors in students, the students are instead conditioned to avoid pain for their own benefit, rather than increasing the desired behaviour (McCormick, 1992). In the school system, using physical punishment has been demonstrated to increase the frequency and severity of unwanted student behaviours (Dubanoski et al.,1983). This was reaffirmed through a study of students in Pakistan experiencing corporal punishment who showed greater levels of hostility (Naz et al., 2011). Indeed, corporal punishment as a tactic to create more obedience is demonstrated to have a positive correlation with negative behaviours (Youssef et al., 1998). Children who received corporal punishment demonstrated more disobedience, stubbornness, verbal aggression, and were more likely to engage in deception (Youssef et al., 1998). Corporal punishment experiences, as reported by primary students, were significantly correlated with current and lifetime aggressive behavior, conduct problems, and hyperactivity (Hecker et al., 2014).

Witnessing violence or victimization has also been related to externalizing behaviours, such as aggression and delinquency (Hanish & Guerra, 2002; Hoglund & Leadbeater, 2007; Schwartz et al., 1998; Janosz et al., 2008). Exposure to violence in school and at home are also strongly related to adjustment problems (Mrug & Windle, 2010; Janosz et al., 2008). An often-overlooked consequence of using corporal punishment as a discipline tactic is behaviour modelling; witnessing corporal punishment teaches children that violence is a way to solve conflict, and that powerful people administer violence to weaker people (Chikoko & Makhasane, 2016; Gershoff et al., 2019; Soneson, 2005). As a result, learners are more likely to become angry and

aggressive towards teachers (Veriava, 2014), their peers, and school property (Hayman & Peron, 1998). It undermines respecting one another and fostering patience (Chikoko & Makhasane, 2016). This again demonstrates the repetitive cycle of aggression, leading to unnecessary negative health consequences.

Poor Academic Performance

Corporal punishment is often used as a method to increase academic achievement through curbing undesired behaviours (Hineline & Rosales-Ruiz, 2013). This tactic has been demonstrated to be largely unsuccessful and may actually generate the opposite effect. According to the WHO (2019), corporal punishment contributes to lower educational potential and academic outcomes in students.

A Nigerian study analyzed sixty-three children in two different schools, one that allowed corporal punishment, inclusive of slapping, pinching, and hitting with a stick, with one that did not. When controlling for factors of socioeconomic status, religious practices, and geographic region, grade one students in the school using corporal punishment demonstrated lower levels of executive functioning and verbal ability (Talwar et al., 2011). In the comparison of the kindergarteners similar executive functioning ability was found in both schools. However, when parental discipline was controlled, the findings suggested that a school environment inclusive of corporal punishment had increasing negative effects on their executive functioning abilities.

In addition, a longitudinal study of school corporal punishment was completed in four developing countries–Ethiopia, India, Peru and Vietnam–by Orgando and Pells (2015). When controlling for cluster fixed effects, they accounted for cluster characteristics by comparing only children residing in the same geographical area but

having different teachers or attending different schools within this area. This study revealed that children who experienced corporal punishment in their classrooms had lower math and vocabulary scores (Orgando & Pells, 2015).

Another study, as completed by Gershoff et al. (2019), surveyed 876 adults aged 18-23 years to report on their experiences with school in 19 states where corporal punishment was still legal. The results of the reported information suggests that children who experienced corporal punishment also obtained a lower cumulative GPA in high school. As a result, the removal of corporal punishment may not only have long term benefits, but also immediate gains in academic achievement.

Corporal Punishment and School Interventions

Schools are ideal environments to challenge potentially damaging cultural norms, such as corporal punishment and bullying (WHO, 2019). These institutions have a large reach across children and families worldwide, therefore, education systems have the potential to play a significant role in child protection, and qualify as a useful context for this research. Creating an awareness of child development processes and alternative classroom management skills and strategies is projected to be a beneficial means of reducing child maltreatment in the classroom (Butchart & Mikton, 2014). The WHO (2019) suggests consistent supervision of children by caregivers that encourages and promotes child dignity, development, and protection as a means to promote this change. Teachers are obligated to provide quality care for the children they oversee, as documented in the Convention on the Rights of the Child ([CRC], UN, 1989). The document states that parties involved are to take “all appropriate measures to ensure that school discipline is administered in a manner consistent with the child's human dignity

and in conformity with the present Convention" (UNICEF, 1989, p.2). This document also states that parties agree to promote and encourage modern teaching methods as developed through scientific and technical knowledge (UNICEF, 1989). This legally binding international agreement (CRC) also highlights basic human rights for all children. This states that parties involved must ensure:

> All children – without discrimination in any form – benefit from special protection measures and assistance; have access to services such as education and health care; can develop their personalities, abilities and talents to the fullest potential; grow up in an environment of happiness, love and understanding; and are informed about and participate in, achieving their rights in an accessible and active manner. (UNICEF, 2019)

As a result of violence reduction in schools, WHO (2019) found positive outcomes of educational achievement, such as decreased absenteeism, increased concentration in the classroom, and lower rates of school dropouts. Increased educational achievement was also shown to increase likelihood for individuals to have a paying job (WHO, 2019). When taught to students, violence prevention skills align with the life skills that help children succeed in school, such as communication, emotion management, conflict resolution, and problem solving (WHO, 2019).

As an alternative to physical punishment, classroom and behavioral management tools aimed at improving student-teacher relationships can be implemented. Through increasing trust and safety within this relationship, students can learn to associate school with positive emotions and emotional supportiveness. In academic settings, corporal punishment creates a negative association between school and children, manifesting as

increased avoidance or a reported dislike towards school for many children, as they perceive school to be a fearful environment (Butchart & Mikton, 2014). Developing a positive student-teacher relationship with the absence of corporal punishment can act as a contributor to reduced stress in students, healthier outcomes and adaptive behaviours (Breen et al., 2015). Higher levels of trust have also been reported between students and teachers who do not use corporal punishment when compared to those who used corporal punishment (Breen et al., 2015). This is a significant factor that can lead to more positive behavioural and developmental outcomes. By replacing physical punishment with behaviours that model respect, such as individualized self-improvement plans, explanation of wrongdoings, and praising good behaviours, students are more likely to mimic that respect back (Breen et al., 2015). Corporal punishment reflects a power differential, teaching students to feel powerless at school and to fear their teachers and their school (Dubanoski et al., 1983). Rules are in place, demanding adherence and prioritizing non-confrontational obedience. On the contrary, inductive teaching styles that prompt students to generate knowledge through inquiry, reasoning, observation, or experience, rather than receive it through direct instruction (Prince & Felder, 2006) demonstrate mutual student-teacher engagement and learning. This process can create emotionally and physically safe environments for students, allowing warmth, praise and understanding, resulting in the development of a reciprocal, mutual respect between the student and teacher (Dubanoski et al., 1983).

Increasing emotional intelligence (EI) is also suggested to increase the academic success and overall social and emotional development of children (Brackett et al., 2011). Studies suggest that emotional awareness, decision-making, social interaction, and

conflict resolution all contribute to children becoming successful adults (Romasz et al., 2004). There is evidence suggesting positive relationships are based on social and emotional competencies (Goleman, 1995; 1998). When corporal punishment is used as a discipline tactic, discussion surrounding emotions are ignored, and does not allow for emotional intelligence to grow or develop (Perry, 2001). In these cases, emotional intelligence is not being exercised or modelled for children. Instead, conflict is exhibited to be resolved through physical abuse.

Recent literature has begun to address the significance of emotional intelligence in schools. Studies suggest emotional intelligence to be highly associated with academic and relational success (Barchard, 2003) and reduced mental health problems (Cherniss & Adler, 2000). According to Saklofske (2014), EI training can enhance stress management capacity and well-being, in addition to improving academic performance. As previously discussed, students that experience reduced stress within their learning environment have been shown to increase in academic outcomes relating to classroom attendance and attentiveness.

When teachers are uncertain of how to manage social and emotional behavioral challenges in their classrooms, studies have demonstrated lower levels of on-task behaviour and performance of their students (Marzano et al., 2003). Therefore, through program choice and classroom management, teachers have a significant function in providing students opportunities to increase emotional competence (Denham et al., 2012). Teachers set the tone of the classroom through their instructional strategies, behaviour modelling, and relationship building (Jennings & Greenbery, 2009). The use of fear-based discipline tactics, like that of corporal punishment, limit opportunities for children

to learn self-regulation or develop problem-solving skills, thus enhancing emotional dysregulation and problematic behaviours (Osher et al., 2007). However, in modifying this philosophy to reduce fear and increase support, the harmful, long-lasting, effects of child maltreatment may be avoided. Thus, training and educating teachers with an approach which meets these requirements could make revolutionary strides in this area.

Isolating corporal punishment as the sole factor contributing to decreased academic performance does not fully acknowledge the systemic issue. Current violence prevention programs fall short of achieving both safety and academic success, as there are many other modifiers influencing the purpose of corporal punishment use. As demonstrated in this paper, corporal punishment is not just a behaviour on its own; there is a system which has evolved with the inclusion of this tactic. Therefore, to achieve student success, it is important to rethink the problem inclusive of the underlying mechanisms. When creating an implementation plan, addressing the system as a whole is compulsory for successful change in the areas presented. This includes culture dynamics, the role of teachers and student-teacher relationships, and research on optimal learning strategies and brain development. In relation to child and youth victimization in schools, Finkelhor et al. (2005) highlighted the importance of using a holistic approach to developing and implementing a public policy. However, programs to prevent and intervene in child victimization remain quite fragmented, highlighting only portions of the victimization spectrum, such as bullying and sexual harassment, while excluding others (Finkelhor et al., 2005). Now is the time to consider an innovative approach inclusive of all subdivided fields of abuse to increase child safety.

A Holistic Approach for School Interventions

A nine-step process outlined in the WHO's Handbook for School-Based Violence Prevention (2019) suggests that the following steps are advantageous in implementing an intervention effectively:

> (1) Develop and address school policies and coordination methods; (2) collect data on violence and monitor changes over time; (3) prevent violence through curriculum-based activities; (4) work with teachers on values and beliefs and train them in positive discipline and classroom management; (5) respond to violence immediately when it happens; (6) review and adapt school buildings and grounds; (7) involve the parents in violence prevention activities; (8)involve the community in violence prevention activities; and (9) evaluate these violence prevention activities and use the evidence to strengthen the approach. (WHO, 2019)

In addition, according to the UNICEF Global Status Report on Preventing Violence Against Children (2020), safe environment approaches, including emotional support and physical safety, have great potential for achieving sustainable gains. Despite being the least supported nationally, such safe environment approaches suggest a proficiency in preventing abuse against children through addressing highly violent environments and interrupting the spread of violence through training and local support, resulting in improved safety levels in public spaces (WHO, 2020). At the core of its philosophy, this suggests that the ultimate goal of an effective intervention would be to create a safe environment for children.

Violence in Ugandan Schools

Literature suggests there is an increased risk of children to be exposed to violence if living in poverty (Mohammad et al., 2015). Specifically, studies suggest that childhood poverty increases levels of exposure family violence (Emery & Laumann-Billings, 1998), neighborhood crime (Sampson et al., 1997), peer aggression (Sinclair et al., 1994), family separation (Rutter, 1981), and unresponsive and punitive parenting (Conger & Elder, 1994; Magnusson & Duncan, 2002; McLoyd, 1998). This exposure was also deemed significantly associated with mental health maladjustment (Finkelhor et al., 2005). Therefore, Uganda as a developing country, has high rates of poverty, increasing the risk for children to be exposed to violence (Evans, 2004). In addition, Uganda is also an example of a society that exercises corporal punishment as a means of disciplining children. Although Uganda has banned corporal punishment in schools, it still remains the most common form of discipline used (WHO, 2019). In July 2013, UNICEF conducted a mixed method study of children 10-18 years of age from 40 primary and 10 secondary schools across Uganda. Of the 3,879 children surveyed, 81% started experiencing numerous forms of violence at school, with 68% indicating teachers as the main source of the violence. Of these children, 74.3% of these children also reported corporal punishment at school, specifically caning (UNICEF, 2013). Other forms of fear-based tactics are also commonplace, such as ear pulling and carrying heavy bricks (WHO, 2019). In addition to this, only 33-40% reported the abuse they experienced to an adult at the time it occurred, as children identified being fearful of victimization by the perpetrator if they were to report such forms of discipline to adult staff (UNICEF, 2013). This everyday method of punishment is a culturally accepted phenomenon for this demographic despite attempts in national laws to eliminate it (Lokot et al., 2020).

Therefore, addressing and preventing child maltreatment in educational settings can not only enhance societal and academic outcomes, but also create a shift to better align with Uganda's written policies, values, and goals as a country (WHO, 2019).

Research on interventions to reduce corporal punishment in Ugandan Schools are limited, however, the interventions that have been established thus far have yielded promising results. DeVries et al. (2015) completed a two-year research project with qualitative and quantitative data, including a randomized controlled trial evaluation of a violence prevention program called the Good Schools Toolkit in Uganda. The non-profit organization, *Raising Voices*, analyzed 42 primary schools who were provided in-depth staff training on non-violent disciplinary methods as well as one-on-one support in the form of visits and phone calls from program staff. This intervention included a six-step implementation procedure for corporal punishment reduction activities in the classroom, aimed to replace this punishment method with positive disciplinary methods. Schools that executed the Good Schools Toolkit saw a 42% reduction in the number of students who reported they had been victims of violence from school staff. Despite expected changes, the intervention reportedly had no effect on students' behavioural problems or on their educational performance (DeVries et al., 2015). It was suggested that this may be due to other factors outside the school, such as socioeconomic status, and family and structural issues related to poverty. The results of this study demonstrated a contradiction of their proposed hypothesis, which was that removing corporal punishment would lead to a decrease in problem behaviors and an increase in learning at the school (Gershoff, 2017). As the intervention was solely focused on the removal of physical punishment, with little emphasis on addressing other factors related to fear-based punishment, this could be

considered as a contributing factor to their lack of success. This reveals the criticality of having an approach that consists of not just the removal of negative reinforcement, but the addition of positive reinforcement.

Context

The Stoplight Approach in Uganda

The Stoplight Approach (SA) is a non-profit organization based in Kampala, Uganda, though its reach extends throughout schools and homes internationally through online distributions of trainings and resources, as well as trainer conferences and visitations. The organization's goal is to create a positive community change towards increased well-being. The SA teaches individuals up-to-date psychological and neurobiological findings on human development and its applications to children and their environments. Using simplified neuroscience, this approach aids in educating individuals on more effective and adaptive ways to discipline outside of fear-based initiatives (Bailey, 2015; Borba, 2013; 2016; Crowe, 2012; Forbes, 2012; 2015; Greitens, 2015; Miles & Wright, 2003; Norman, 2015; Pelvin, 2009; Purvis, 2014; Purvis et al., 2013; Reivich, & Shatté, 2003; Siegel, 2020; Siegel & Bryson, 2012; Wong & Wong, 2002). By breaking down the functions of the brain into three simple colors, it enhances general knowledge of these functions in an easy to teach way (Orr, 2016). Through knowledge and awareness, the purpose of the SA is to create a safe environment that would protect children from fear-based approaches and move them out of living and learning in a state of distress (Orr, 2016). The SA tackles these critical underlying psychological components that may be contributing to the damage inflicted through corporal punishment. As stated previously in this chapter, corporal punishment is a method of

discipline that can cause harmful long-term effects in children. Unfortunately, it is still widely used within the schools of Kampala. As such, this site was deemed an appropriate location for the current research.

In addition, the SA follows a holistic approach to implementing change. Drawing on the Transtheoretical Model, the SA acknowledges a six-step process to engage teachers, students, administration, and parents. As discussed in chapter two, the implementation process is in line with that recommended by the WHO (2019) to be strategic in enabling schools to thrive when undergoing a change that is relative to each individual school and their readiness level for change (Prochaska & Velicer, 1997). The intervention materials consist of books and booklets with activities for teachers and staff, and posters and facilitation guides for 20 different activities with students. These activities are related to creating a better learning environment, respecting each other, understanding power relationships, using non-violent discipline, and improving teaching techniques. Training is also provided to teachers on how to use all included resources. The SA is designed to be implemented with minimal cost, thus making it an appropriate tool for low-resource settings. The development of this approach for this cultural setting was achieved in close collaboration with Ugandan teachers and UNICEF board members. It has been revised based on in-depth feedback from students, teachers, and other professional individuals in Uganda. The SA is currently being used in approximately 20 Ugandan schools, and in all of these cases, these schools have requested the training and implementation from The Stoplight Approach, signifying demand and willingness to learn and change. There have also been incidents where schools requested the training but did follow through. As concluded by the organization, it appears this shows the large

significance of culture on thinking and behaviour, and the importance of accurate implementation, appropriate support, and in-depth understanding when teaching new concepts.

Stoplight 101 Course. The Stoplight 101 Course is an online training platform developed by the SA team that delivers a general overview of their philosophy and how to implement it within their communities. This program is accessible online (see Appendix F). As outlined in the Stoplight 101 course manual, each teacher will work through the seven modules over two days. Module one-to-four will be completed on the first day, followed by module five-to-seven on the second day. Each module includes two videos approximately 20 minutes long, followed by a reflection section and a quiz. The quiz will include questions on the content of the training material (see Appendix F). At the end of both days, a virtual open discussion session with a SA certified trainer will be available.

Modular Quizzes. Seven modular quizzes reflecting the content of the Stoplight 101 course will be used to assess participant understanding (Appendix F). These instruments have been pilot tested with teachers in Uganda, Canada, Greece, United Kingdom, and the United States and the quizzes have been reviewed and refined based on participant feedback. Each quiz consists of eight to 10 items and will take approximately 3-5 minutes to complete. Paper copies were available for participants to provide their responses, however, the structure of the program is best supported when used virtually.

Virtual Training Considerations

Due to recent world events, much of society has transferred processes online. Mass in-person gatherings have now turned into online webinars, seminars, and lectures.

This has drastically redefined social systems in societies (Teti et al., 2020). With such drastic changes occurring, the efficacy of online programs for participants and researchers is significant. To address this phenomena, a recent study by Lobe, Morgan and Hoffman (2020) looked at qualitative data collection through video conferencing. Their findings show support for virtual platforms to provide significant value to the challenge of social distancing while transitioning away from face-to-face data collection. With video conferencing apps, Lobe et al. (2020) analyzed various functions available across platforms, including the number of allowable participants in a session, audio and video recording, one-click accessibility, and privacy components. For optimal validity and reliability, these functions are recommended to be considered in the methodology. Ethical concerns regarding privacy issues are also noteworthy when utilizing online services. As well as with traditional research, ensuring privacy, confidentiality, and security of participants and data remain critical through an online means of collection (Lobe et al., 2020). In accordance with these research findings, this current study would most benefit from using line web conferencing apps such as Zoom o\ Webex, as these services provide the least amount of potential issues, with individual accounts not being required for free access to basic services, etc.

There is a growing body of research to suggest that the quality and level of discussion of data in web conference virtual focus groups was similar to the face-to-face control groups (Collard & Teijlingen, 2016; Kite & Phongsayan, 2017). A concern highlighted in this research was that of geographically dispersed populations and the impact of technical difficulties. As this is a potential risk for the current study, on-field research assistants will be assigned to coordinate local gathering places and to address

potential technological issues. Despite supportive research for virtual efforts when collecting data, a limitation remains within studies which lack a participant reflection component (Kite & Phongsayan, 2017). To overcome this drawback, the current study will include a reflection survey to collect the perceptions and experiences of the group participants as an analytical framework to assess the training process.

As technology advances, the ease of access and usability increases. Some other benefits include its convenience and cost-effectiveness compared to face-to-face meetings, and an increased recognition of the ability for online collection to replicate, and potentially enhance, traditional methods (Braun et al.; Clarke & Gray, 2017). Archibald et al. (2019) studied qualitative and mixed method research using Zoom. In this study, all participants agreed upon the usefulness of the method, and the majority expressed a preference in comparison to in-person, telephone and other video conferencing platforms. According to participant feedback, rapport was maintained between participant and researcher, and also acknowledged the convenience and cost-effectiveness of this method (Archibald et al., 2019). Technological issues were again addressed as a limitation for this method, including connectivity and connection. For the current study, this plan is described in the procedures section to follow.

Purpose of Study

In summary, literature suggests using an intervention that utilizes a holistic approach to address the fear-based component of classroom management, could result in a change in overall school culture, including teaching beliefs, interpersonal relationships, and student learning outcomes and development. An approach that enables learning over student compliance to develop self-regulation and problem-solving skills is proposed to

be beneficial. The current research will seek to explore an intervention designed to address fear-based discipline techniques, such as corporal punishment, as utilized by teachers in Uganda. With the removal of emotional and physical abuse, this intervention aims to develop safe environments that allow increased opportunities for children to learn life skills, such as emotion regulation and problem-solving. The purpose of this study is to assess aspects of perceptual teaching beliefs and practical change of teachers when adopting a holistic approach within schools in Uganda. This will be achieved using a mixed method approach to assess the perceptual and practical changes of experienced teachers within Ugandan schools when trained in this style of intervention. Variables to consider include teacher gender, years of teaching experience, other Stoplight Approach supports, such as additional exposure to training or access to SA community, previous exposure to SA training and classroom size, which will all be assessed to identify any significant correlations.

CHAPTER THREE: METHOD

Mixed Methods Explanatory Sequential Design

The choice of design for this mixed method study is an Explanatory Design, using the follow-up explanations model (Creswell, 2014). With the quantitative data analysis developing an overall understanding of the proposed research questions, a subsequent phase collecting qualitative data to create refinement of developing themes and further insight into the statistical results through further investigation of the participants perceptions (Ivankova et al., 2006; Rossman & Wilson, 1985;. Subedi, 2016) was the most appropriate. As a two-phased design, the first phase placed an emphasis on a quantitative data collection, allowing for concurrent, but optional, qualitative responses in the form of open-ended explanations to their quantitative responses. The collected qualitative text in this phase aids in explaining and elaborating on the quantitative data collected. This collected data was also sent to the researcher and input into SPSS for descriptive statistics of frequencies and summary statistics, and a paired sample t-test for change that occurred between Survey A and B. The second phase involved a follow up utilizing a qualitative method of a semi-structured interview. Participants were selected based on those who were willing and available, while also having met the inclusion criteria, which is described as follows in the Population section.

Population

This study included teachers working in rural and urban schools in Uganda. Teachers across Uganda were recruited via the SA network that was previously established in Uganda, and a snowball recruitment approach via word of mouth was used to extend recruitment beyond the network. The inclusion criteria for this population

incorporated those over the age of 18 years old, have the ability to read/write English at or above a Grade 7 level, be a teacher in a Ugandan school, and have only limited or no exposure to the Stoplight Approach in which the Stoplight 101 course specifically had not already been completed. To be included in this study, teachers were first required to successfully complete the Stoplight 101 training course. Only those individuals scoring 70% and above on the combined average of the quizzes were included in phase three of data collection, where an analysis of change across all three surveys was analyzed. In addition, only participants meeting all of the aforementioned qualifications were invited for the interview portion of the study.

For mixed method studies, sample sizes varying from three to 150 participants are recommended (Palinkas et al., 2015). For this study, the sample size began with approximately 60 eligible teachers accepting to participate in this study. With this number, to reach saturation, approximately six participants were to be selected for interviews (Flynn & Korcuska, 2018; Mason, 2010). With a low number of teachers reaching the end of this study who also meet the eligibility criteria, selection of participants in the semi-structured interview were based on participant completion of all three surveys across the three data collection points. Thus, all seven participants who passed the eligibility criteria were extended an invitation to explore why a change did, or did not, occur in their philosophies and practices. Only six of these participants followed through with the interview upon invitation. Each of these qualitative interviews took approximately 70-90 minutes to complete.

Scope of Research

The purpose of the current study was to explore the impact that a holistic school intervention, utilizing safe environment approaches, would have on the self-reported beliefs and practices of teachers. A holistic school approach is defined by the WHO (2019) as involving the multi-faceted dynamics of the educational system. This includes all individuals who are a part of the education system, including leadership, students, and staff, as well as the parents that hold a behind-the-scenes impact. In addition to the people involved, a holistic approach also includes policy development and implementation, which translates into both the tangible and intangible aspects of the classroom environment. It is suggested that all these aspects are to be addressed in an approach for impact to occur sustainably (WHO, 2020). Ultimately, when all described aspects are included in the process of creating a safe environment for children, student outcomes may be optimized. For this study, a safe environment is defined as an environment free of, or with limited exposure to, intense or prolonged stress, often provoked by fear, which can be either emotional or physical (Kotulak, 2008; Perry, 2001; Shonkoff et al., 2009). A safe environment can be created through the interactions individuals experience with others. Therefore, safety can be a way to describe relationships as well as environments or experiences. Specifically, felt-safety can be provided or taken away from an individual, through their developing relationships and experiences with others. Particular ways in which safety can be achieved is through providing individuals opportunities to learn and be guided through problems (Tremblay 2000; Olson et al., 2011), open and mutual communication such as positive talk and verbal explanations (Bernier et al., 2010; Grusec & Goodnow, 1994), emotional supportiveness (Berlin et al., 2009; Zahn et al., 1979), as well as having limited exposure to violence. In many school cultures, these

qualities are not assessed or monitored, apart from physical violence. The purpose of this study is to take into consideration the value of a safe environment, both emotionally and physically.

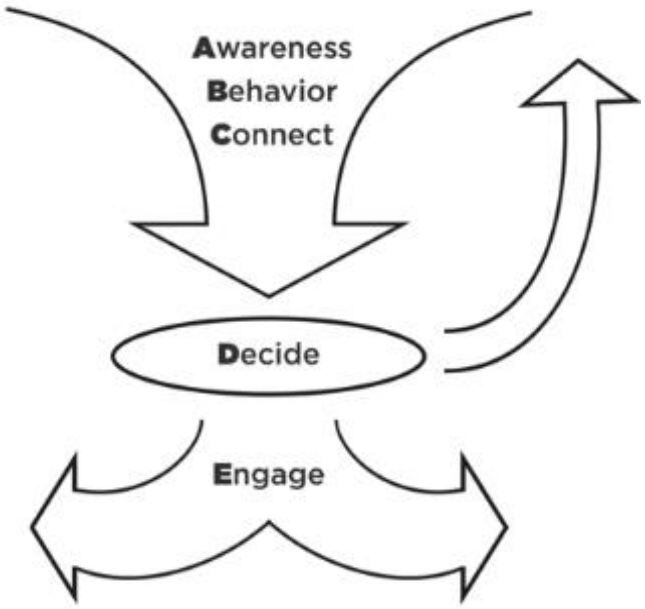
The Stoplight 101 Overview and Training Content

The SA is designed to simplify complex brain science into a common language, with the aim of transforming relationships with the vision of creating "connected people, caring communities, and a kinder world" (The Stoplight Approach, 2022). As stated on their website, they provide clear steps to build emotional intelligence in families, schools and communities. Their philosophy focuses on three main areas: to raise awareness, to develop and distribute resources, and to provide collaboration and training. The SA is not tied to a particular culture or context. They promote local responsibility in community development and low cost resources.

The Stoplight 101 is a seven-part online video series, providing participants with all they need to know on how to incorporate the stoplight approach in their lives. It is broken down into sections as outlined in their book: (a) Introduction; (b) Stoplight Overview; (c) A – Awareness; (d) B – Behaviours; (e) C – Connection; (f) D – Decision; (g) E – Engagement; (h) F – Frequency; (i) Conclusion.

Figure 1

Stoplight 101 Content Overview



The Introduction of this course is designed to be completed in combination with the Stoplight Overview, creating part one of the Stoplight 101 training course. The introduction includes a welcome, explanation of how the training works, a companion booklet, journal, and a facilitator guide. The Stoplight Overview includes a video overview of the topic, and a "Science Supporting" video of the topic (The Stoplight Approach, 2024) . Topics covered in this section include the role and importance of emotional intelligence and relationships, explanation of red, yellow, and green states, neuroplasticity and its relevance, and practical applications of these learned concepts. This section ends with a homework page, quiz, and additional resources.

Each subsequent lesson follows the same format, with videos running approximately 15-20 minutes each, and containing homework, a quiz, and additional resources all relevant to the information provided in that lesson. There is also a religious

application for each lesson, optional for all participants to use at their own preference. A summary of topics covered in each lesson are outlined in Table 1.

Table 1

Lesson Overview of the Stoplight 101

Variable	Description
Lesson 1	Introduction to The Stoplight Approach
Lesson 2	Awareness, focuses on emotional awareness of self, Understanding the warning signs of red and yellow brain functioning, one's resiliency and it's contributing factors, and the role of anxiety.
Lesson 3	Behaviour, teaches the basics of the brain, addresses how to manage yourself and others when in red, yellow, and green brain states, the importance of repetition in learning, and the skill of self-regulation.
Lesson 4	Connection, explains the role and importance of empathy, and how to practice.
Lesson 5	Decision, explores intentional decision making, moral identity, and using connection as a strategy to build trust.
Lesson 6	Engagement, addresses social responsibility in the context of the SA, and understanding how to meet the needs of others in their own brain states.
Lesson 7	Frequency, discusses adopting a growth mindset and acknowledging the process for change to occur.
Lesson 8	The Conclusion lesson follows a different format, designed to be completed with Lesson 7, as it includes only a short video on "What's Next" following the training, additional resources, and bonus material of posters and worksheets for teachers to use in their classroom, designed to be applicable for all ages.

In the study, each participant had access to a facilitator and trainees to help guide them through the sessions, as well as to address any questions they may have had. The course can be found online as cited in the Reference section. Figure 1 is an illustration of how the SA works, to first understand how the human brain works and how this understanding can impact oneself and those around them. In summary, it involves the following steps; (a) *Awareness* of your emotional state, (b) regulate your *behaviour,* (c) using empathy

to *connect* with those around you. (d) *decide* what kind of person you want to be and (e) *engage* with the world around you.

CHAPTER 4: DATA COLLECTION, ANALYSIS, AND INTERPRETATION

Phase 1: Quantitative Data

The current research employed a longitudinal design with quantitative and qualitative data collection occurring at four time points across four months. The first data collection occurred prior to the administration of the Stoplight training. The second data collection point occurred immediately following the full completion of the Stoplight 101 training. The third time point of data collection occurred three to four months after the completion of the Stoplight training, depending on the availability and flexibility of the participant's schedule. The fourth data collection was qualitative, designed as a semi-structured interview, occurring within two weeks from the third data collection point. Designated time allotted for completion of each instrument is provided in the instrument descriptions.

Each location had a research assistant (RA) to monitor the training. RAs in Uganda were selected to ensure proper onsite procedures were followed to acquire consent and collect data. Selection of RAs was based on availability and ability to perform required tasks. Each one was trained on ethical protocols for collecting research data by the researcher and signed a non-disclosure agreement. Using the network of Stoplight Approach (SA) contacts, teachers from across Uganda were invited to participate. An incentive in the form of a randomly selected participant draw for two separate prizes was offered. Those who accepted the invitation were included in the experimental group and were able to participate in the virtual teaching program called the Stoplight 101. There was no fee to participate in this program. Upon agreeing to participate, each person was informed by the RA of their designated training date and location. Participants were asked to provide contact information as a means for

communication throughout the duration of this study. This information was stored on a password protected computer in a password protected document to which only the researcher had access. Participants were required to travel to the nearest training site at their own expense. COVID-19 health and safety protocols as outlined by the WHO (2020) were followed at each site.

All data collection occurred digitally. Encrypted data was sent to the researcher and stored on a password protected computer to which only the researcher had access. In the event that technology was inaccessible, paper copies were made available, however, no paper copies were used in the process of data collection for this study. When training was not accessible due to technological disruptions, an alternate date within a two-week timeframe was established to reattempt the training.

The confidentiality and anonymity of participant answers was ensured through the assignment of a random code by the researcher, which became their participant ID. This occurred prior to gaining access to complete the online course. Through email correspondence, the researcher and participants consented to their preferred method of receiving their Participant ID. In addition to allowing anonymity, this ID enabled the correlation of responses throughout all study phases. A master copy with participant names, codes and contact information was kept to ensure correct identification throughout the study. This information was protected on a password secured computer to which only the researcher had access.

Participant Selection

Participant numbers varied across surveys, with a final sample size for each survey as follows: Survey A and B (n=18) and Survey C (n=7). Despite receiving 85, 43,

and 15 responses for Survey A, B, and C respectively, the remaining surveys were eliminated due to ineligibility of meeting participant criteria, invalid or untraceable participants across the surveys, or incompletion. In addition to the expected participant attrition, survey numbers appeared to fluctuate due to technical errors as well as misunderstood participant IDs. Only those participants who completed Survey A were eligible for Survey B, and only those who completed Survey A *and* B were eligible for Survey C. Those who met the requirements for a survey were then labelled 'Finishers' for that single survey, comprising the final population for that survey. In two cases, participants completed all of Part-One, however dropped out in Part-Two, and thus the Part-One data was used, however Part-Two data was not. Complete data sets are those deemed Finishers of all three surveys, across all three data collection points, that were also traceable back to the appropriate participant IDs. Due to technical error or miscommunication, such as incorrect IDs, data was not always traceable back to the participant and could not be used as part of the analysis which required complete data sets. Therefore, such inconsistencies across participant surveys resulted in a lower number of complete data sets (n=7). For these reasons, despite having 11 Finishers of the final survey, only seven participants were deemed eligible for interviews.

Data Collection Point One

This study began in 2021, which was prior to the reopening of primary and secondary Ugandan schools due to the Covid-19 pandemic. As a result, participants remained at their home or arrived at their designated stations for this portion of the study. Each location had access to computers and the internet, where only the RA and other participants assigned to that location were present. As the researcher, I scheduled a Zoom

meeting with each participant to provide instructions to the participant on how to access the consent form for study participation. In this meeting, I verbally explained the study process and what it entails, as outlined in Appendix D, along with a verbal explanation of how the participants' anonymity and confidentiality will be protected. I also explained my role in answering any questions the participants may have related to the process. Prior to undergoing the survey, written consent to participate in the study was required (Appendix B). If consent was not received, the participant was offered to continue with SA training, but was not included in the study.

Following this introduction, participants were guided to Survey A (Appendix C). This data collection began following survey instructions and agreement to proceed. The survey was provided using the online platform Qualtrics. I remained accessible throughout the duration of the survey to provide clarification and directions if necessary. To ensure participants fall within inclusion criteria, the introduction to this survey requested each participant to answer demographic information that determines eligibility. Following the completion of the survey, participants were directed to begin the SA Training, inclusive of the online course and interactive meetings with the SA trainers.

Data Collection Point Two

Data was collected from participants at their same designated locations, following the completion of all SA training modules. This occurred within four weeks from the start of the SA training that occurred in data point one. I was again present to answer any inquiries participants may have had. At this time, the Stoplight 101 Post-Teaching Philosophy Survey (Survey B, see Appendix C) was provided digitally through Qualtrics. Consent was again required to access this survey. Upon request, I provided participants

with their assigned code from the initial Teacher Philosophy Survey for identification purposes. At this time, participants were reminded to partake in the upcoming data collection point three and were provided with the date when it was to occur. Preferred mode of contact, such as email or phone, was addressed again to ensure proper follow up.

Data Collection Point Three

The third data collection point occurred a minimum of three months post SA training. This time interval had been originally selected due to the standard length of a Ugandan school term. However, due to the closure of schools, the timeframe was extended to ten months for some participants due to their inability to practice the intervention in schools. No participants partook in data collection beyond 12 months following their training. Emails reminding participants of the survey were distributed two weeks and one week prior to the date by the researcher. The email reminded participants about inclusion criteria for participation in this phase of the study, which included having spent a semester after the SA training as a practicing teacher. As previously done, participants were encouraged to gather at the designated location on the identified date. However, if it was not possible for a participant to return to the assigned location, they were given a one-week window to complete the survey remotely. Participants were again instructed to use their assigned participant ID as provided by the researcher to identify their responses for the Teaching Philosophy Survey C (see Appendix D). Access to this survey was then emailed to each participant. Participant IDs could again be provided through preferred means of contact upon request if needed.

Since survey data was completed across three separate timepoints, incomplete data sets occurred. These data sets reflected a notable large participant dropout rate, and therefore in such cases, data sets deemed incomplete were not entered. However, data collected from the same participant across point one and two were included as complete data sets, as this could help assess perceived change relative to the training alone, aiding in the exploration of the primary research question addressing change in teachers' philosophical beliefs due to the intervention. This data was not included when assessing practical change, however, as data collection from point three was required to assess practical change of teachers with the use of the intervention in their classrooms for three months. Thus, at this point, incomplete data sets were not used as it was not relevant to assessing the practical change. As perceptual and practical change across each timepoint was the aim of analysis, omitting the cases of missing data was identified as being the most prudent route to ensure the fidelity of the data.

Instruments

Teaching Philosophy Survey – Pre, Post, Three Month Post (Appendix B, C, D). A mixed-measure 24-item self-report survey (Part-One) was used at every data collection point to assess the participants' philosophy of education pre- and post-intervention. Additional items were added to the second and third administration of the surveys (Surveys B and C) to further assess the primary and secondary research question. Items on all three Teacher Philosophy Surveys were created through the modification of an already tested survey used for previous training in Uganda, as it was reviewed by the SA staff and local schoolteachers to ensure they reflected the experiences of students and teachers in the Ugandan context. This version was then evaluated by myself and my

supervisors to achieve optimal clarity. Participant IDs were used to identify corresponding responses for each data collection point. A hardcopy of these surveys was available upon request if there was limited access to individual computers.

To enhance clarity of the surveys and their administration, an overview of the three surveys and their properties is provided in Table 2. The first Teacher Philosophy Survey was administered at the initial data collection point. Following the gathering of demographic and contextual participant information. This survey included 24 quantitative questions that employed a 5-point Likert scale (1 – *strongly disagree,* to 5 – *strongly agree*). This section of the survey also provided space for participants to elaborate on their numbered responses and explain

Table 2

Explanation and overview of survey contents over all three data-collection points

	Teaching Philosophy Surveys		
Survey Properties	Survey A n=18	Survey B n=18	Survey C n=7
Administered	Pre-Intervention	Post-Stoplight Training	Post-Intervention
Part-One	24 5-point Likert-scale questions 1 open ended question	24 5-point Likert-scale questions (randomized) 1 open ended question	24 5-point Likert-scale questions (randomized) 1 open ended question
Part-Two	Nil	21 5-point Likert-scale items 1 nominal question 1 open ended question	21 5-point Likert-scale items 1 nominal question 1 open ended question
Part-Three	Nil	Nil	5 open-ended questions
Approximate Completion Time	3-5 minutes	5-10 minutes	30-40 minutes

contextual factors influencing their response, if they chose (see Appendix B). An explanation was optional as outlined in the instructions. This survey took approximately 3-5 minutes for participants to complete.

Teacher Philosophy Survey B was administered immediately following the completion of the training, marking data collection point two of the study. The purpose of the Survey B was to assess any changes in teaching beliefs that occurred following the SA training, prior to implementation of the intervention. The original 24 5-point-Likert scale questions remained the same, however, Survey B was a reordered version of the original questions to reduce participant survey familiarity. The introductory demographic and contextual items were also removed due to irrelevance, and a Part-Two was added (see Appendix D). Part-Two of the survey was designed to assess the SA training. This included an additional 21 5-point Likert-scale items, along with one nominal and one open-ended question. These additions were included to obtain feedback of the effectiveness of the training, as well as importance of the components taught and addressed in the training. Survey B took approximately 5-10 minutes for participants to complete.

Data point collection three occurred when Teacher Philosophy Survey C was administered, three months following the completion of the SA training. The purpose of Survey C was to assess any changes in beliefs and practical implementations while teaching with the SA, following the SA training, across the span of a three-month school semester. This survey again built off the previous, as it consisted of the same 47 Likert-scale items as found in Part-One and Part-Two of Survey B. Additionally, it contained a Part-Three, consisting of open-ended questions requiring written responses. Part-Three

was designed to achieve feedback relating to the effectiveness and importance of the SA training, along with its impact on their philosophies and practices within their individual implementation process. An item was also added to identify willingness and eligibility to participate in an interview, to be conducted approximately two weeks after the completion of the research program where teachers were to implement SA into their classrooms for a school semester, following the training completion. Survey C was also used to determine which participants would be invited to participate in the interview. This survey took approximately 30-40 minutes for participants to complete.

Data Analysis Methods

Descriptive statistics were utilized to summarize and analyze the key characteristics of the dataset collected in this study. The primary objective of the descriptive analysis was to provide a comprehensive overview of the variables of interest and to identify patterns, trends, and distributions within the data. Prior to analysis, the collected data underwent a thorough cleaning process to identify and address any inconsistencies, errors, or missing values. Data cleaning procedures included removing duplicate entries and checking for out-of-range values. Mean and mode imputation were omitted due to the small sample size, and thus no statistical significance tests were being utilized.

The variables analyzed in this study included: participant demographics (e.g., age, gender, education level); pre-test and post-test Likert scaled survey responses measuring practical and philosophical teaching methods; pre-test and post-test Likert scaled survey responses measuring attitudes towards the intervention; duration of participation in the intervention program. These variables were selected based on their relevance to the

research objectives and their potential to provide insights into the effectiveness of the intervention.

Descriptive statistics were computed for each variable of interest. Measures of central tendency, including means and medians, were calculated to describe the average or typical response for each variable. Measures of variability, such as standard deviations and ranges, were used to assess the spread or dispersion of the data around the central tendency. Additionally, frequency distributions and percentages were generated for categorical variables to summarize the distribution of responses. The analysis was conducted using the Statistical Package for the Social Sciences (SPSS), version 27.0. SPSS was chosen for its robust capabilities in data management, analysis, and visualization. Descriptive statistics provided insight into the characteristics of the dataset, allowing for the identification of key patterns, trends, and relationships. By summarizing the data using measures of central tendency and variability, descriptive statistics facilitated the interpretation of the research findings and the communication of results to stakeholders. Assumptions made during the analysis included the assumption of normality for continuous variables and the assumption of independence of observations. Limitations of the descriptive analysis included the reliance on self-reported survey data, potential response biases, and the limited ability to establish causal relationships due to the observational nature of the study. Descriptive statistics were reported in accordance with the American Psychological Association (APA) guidelines for reporting statistical analyses in research publications. Summary statistics were presented with appropriate measures of central tendency, variability, and precision.

Phase 2: Qualitative Data

Data Collection Point Four

The fourth and final data collection point involved a semi-structured interview (see Interview Guide in the Appendices for a list of questions), designed to further explore reported changes, if any, both philosophically and practically. These interviews occurred between four to 10 months after participants completed the training intervention and Survey B. This was to ensure all teachers had a minimum of three months, or the equivalent of a full semester, to practice implementing the learned approach in their classrooms. Due to school closures in Uganda during the COVID-19 epidemic, some teachers were not able to practice immediately following the training, therefore time between data collection point three and four was extended.

As a result of participant dropout and technology setbacks, only seven participants completed all three surveys and met participant selection criteria. Therefore, all seven participants were selected for an interview. These individuals were contacted by me, the researcher, through the email provided as their preferred means of communication. Upon invitation, selected participants were required to self-identify and give consent for a one-on-one interview, which was recorded. Participants were offered the opportunity to conduct this interview with their video on or off due to technology access or personal comfort levels with filming. This interview was used to discuss their own personal experience of learning and applying the Stoplight 101 teachings in the classrooms. Interviews were completed by me via zoom. Interview sessions were approximately 70-90 minutes long.

Instruments

Semi-Structured Interview (Appendix E). Qualitative data was collected through participant interviews. In addition to completing all three surveys, inclusion criteria for this instrument involved being actively engaged in a teaching position for the duration of a school semester following the Stoplight 101 training, as well as having attempted to implement the SA philosophy in their classroom. This interview comprised questions specifically addressing topics related to child maltreatment, classroom safety, and student engagement. The World Health Organization does not specifically have surveys designed for teachers to complete regarding student violence in schools, however, WHO (2020) frameworks for assessing student maltreatment were used in the development of these items along with SA concepts. Although questions for the interview were scripted, the interviewer used an informal, conversational style to relate to their individual experience implementing the SA within their classrooms. Though each interview progressed uniquely, the interviewer ensured all topics from the script were covered. All interviews were digitally recorded and transcribed verbatim. The structure of this interview was adapted from a previously conducted study (Ogilvie, personal communication, 2020).

Participant Demographics

Participants in the semi-structured interviews met all participation criteria as outlined, for a total of seven participants. Participant demographics of Completers as self-reported at the beginning of the initial survey is demonstrated *in Table 3.*

Table 3

Demographics of Participants Who Completed All Three Surveys, n=7

Variables	Values, n (%)
Age (years)	
26-30	2 (28.6)
31-35	1 (14.3)
36-40	4 (57.1)
Sex	
Female	5 (71.4)
Male	2 (28.6)
Years teaching	
1-5	3 (42.9)
6-10	2 (28.6)
11-15	2 (28.6)
Average class size (number of students)	
11-20	4 (57.1)
21-30	1 (14.3)
31-40	1 (14.3)
50+	1 (14.3)
Previous exposure to SA	
Yes	4 (57.1)
No	3 (42.9)

This study included seven participants in which four (57.1%) identified in the age range of 36-40 years, one (14.3%) within ages 31-35, and two (38.6%) as 26-30 year olds. Results of this study indicate that the majority of teachers were female (71.4%), however this does not precisely align with statistics documented by CEIC in Uganda, which reports only 42.695% of Ugandan teachers to be female (CEIC, 2016). Results as well indicate that a small majority of participants (57.1%) have class sizes between 11-20. This is contradictory to Ngware et al. (2016) in which 69 students was reported to be the average class size in Ugandan regions. This misalignment could be representative of the reach of the sample, as it is also evident when extended to a sample size of 17,

including Survey A and B participant completers. Despite the research program being spread nationwide, the reachability bias in which the word-of-mouth invitation was extended was inescapably present. This misrepresentation may also demonstrate how privileged schools were increasingly likely to follow through with participation with advantageous access to technology for training and communication means. Therefore, this sample size may not be representative of Uganda as a whole, where student-teacher ratios are historically reported to be much higher (Ngere, 2016). Additionally, of the participants included, findings revealed three (42.9%) respondents as having spent 1-5 years in the teaching profession, followed by two (28.6%) having 6-10 years, and another two (28.6%) having 11-15 years of experience. Out of these seven eligible participants, all were invited to participate in the interview process. However, only six of the seven followed through with meeting the interviewer.

Data Analysis Methods

All data was transcribed through a third-party organization in confidence and returned to the researcher for analysis. For this study, a top-down theoretical approach was used to develop item generation. This approach has been shown to be appropriate when a specific research question is the motivator for data analysis (Nowell et al., 2017). For qualitative data, thematic analysis following a six-step method will be used (Braun & Clarke, 2006). This method is as follows:

1. Become familiar with the data through reading and rereading data.
2. Generate codes relative to interesting features in a systematic fashion.
3. Search for themes by ordering codes into potential themes.

4. Review of these themes by checking functionality of the themes through developing a thematic map.

5. Defining and naming themes as an ongoing analysis for refinement of themes, overall story, clear definitions, and theme names.

6. Production of the report as the final opportunity for analysis.

Within these steps, I began breaking larger text into smaller segments. For example, the theme of "SA use in classroom" was identified through several codes that referenced how teachers adopted SA into their practices, i.e. common language, circle time. I collated these into an initial theme called "functionality." Following this step, the codes were organised into broader themes that seemed to say something specific about the research question. The themes were predominately descriptive, as they described patterns in the data relevant to the research question.

With this method, it is acknowledged that the researcher has an uncontrollable bias that will affect the themes derived from the data (Braun & Clarke, 2006). This awareness is pertinent to the analysis process as it allowed myself as the researcher to ongoingly assess my decisions during my investigation. Thematic analysis can be used with a number of theoretical frameworks. However, it is important that the theoretical framework, methods and research question all align (Braun & Clarke, 2006). Together, these are identified as intentional decisions having influence on the developed themes (Braun & Clarke, 2006). Using this form of thematic analysis, a theme is a construct that "…captures something important about the data in relation to the research question and represents some level of patterned response or meaning within the data set" (Braun & Clarke, 2006, p. 82). Themes are developed based on size, defined as prevalence *within*

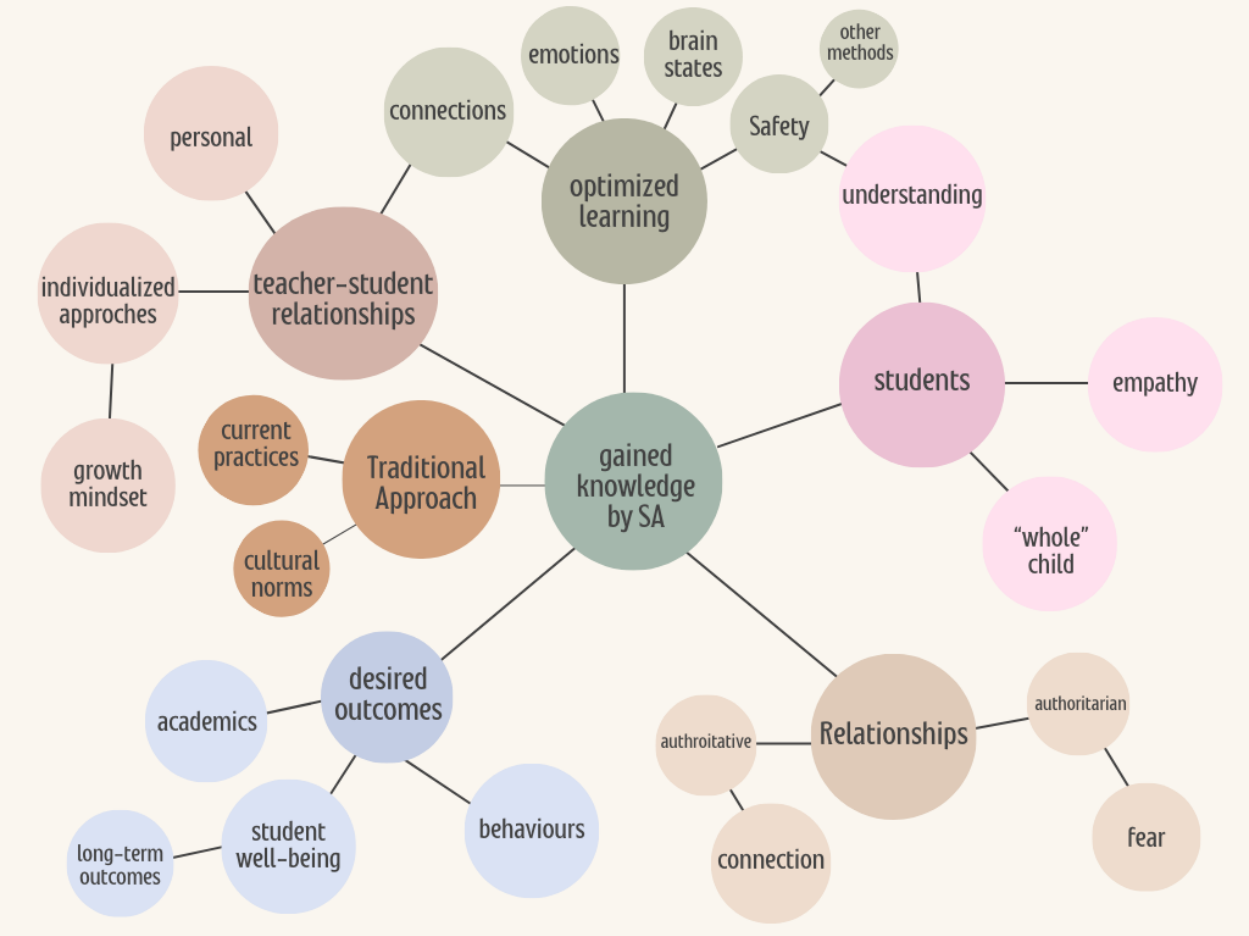
and *across* the data. The frequency of an occurring theme signifies its relevance to be explored, and is deemed important to the findings in relation to the overall research question. This requires flexibility in the judgement of the researcher (Braun & Clarke, 2006) when developing themes from survey and interview responses. Trustworthiness will be established as an iterative and reflective process that occurs in every stage of the thematic analysis (Nowell et al., 2017). As a means for credibility, recording, systematizing, and disclosing a detailed methodology allowed for necessary proof and transparency (Nowell et al., 2017). The descriptive repeatability of the process and rich description of the study methods demonstrates a dependability of the process.

For the current study, coding of the themes was based on the specific research question when reviewing interview transcripts and open-ended survey questions. From a top-down thematic analysis approach, the focus of coding was with a semantic approach to the content. This involves moving from description of the data to organization and summarization of an interpretation of the data, with an attempt to theorize the significance of the identified patterns and their inferences (Patton, 1990). All coding was completed by the researcher.

Upon the initial read of the qualitative data, the themes of classroom environment, behavioural management, and relationship building were acknowledged as potential areas for change pre- and post-intervention. However, these themes themselves did not capture the essence of the interview data. Words encapsulating the entity of the data retrieved from the interviews are provided in Figure 2. I assessed these words, how they interact with one another, and how they developed. Additionally, prominent themes that were reoccurring in the data also were noted and

Figure 2

Initial Coding Words and Their Relationships for Developing Themes



developed into codes. This included an increase of emotional intelligence, positive student-teacher relationships, a community-engaging approach, and the meeting of a critical need. Words that helped define some of the teachers' experiences included, awareness, education, ownership, holistic perspectives, evidence-based, unique, and classroom management tools. From these terms, groups were created, ultimately developing the outline of chapter six.

For the second question, challenges with and support for the intervention were divided into the emerging themes of time, critical need, evidence of change, functionality,

education, ownership, presence. Such topics were then divided into positive and negatives, or the effectiveness and versus ineffectiveness of these components, bringing to light overarching themes of innovation, comprehensiveness, collaboration, evidence of change, personal application, and self-management that the training entailed. These were then explored further and arranged as displayed in Chapter 6.

Role as the Researcher

As a qualitative researcher, it is imperative that I acknowledge the impact my personal experiences may have on my interpretation of the interviews. During data analysis, it is important to acknowledge that the researcher's role can influence and shape the analysis process. These potential biases can be exposed through judgements used when coding, theming, and contextualizing the data (Nowell et al., 2017). Thus, as an individual with unique experiences, it is inevitable that my lens of analysis may have biases or prejudgements. As I reflect upon the personal choices leading me to this study, I want to acknowledge some of these potential prejudices. The reason I have chosen to assess the SA intervention is due to my past involvement in the creation, development, and implementation of the SA into a number of cultures and environments. The city of Kampala, within Uganda, was the initial setting in which this occurred. From these specific experiences, my curiosity to understand why some implementations were effective, and others were not, began here. As I aided in the development of SA resources and research during their early stages, my fondness towards this initiative grew as I sensed potential for a new movement to create substantial change. However, I was also exposed to many non-profits that demonstrated an ineffectiveness to create positive change, limiting the ability for their programs to succeed. I have continued to wonder if

change could ever be possible, even if a perfect intervention existed. I have since reflected on the definition of true change and how it presents itself. My investment in, and passion for, this initiative would seem like an obvious bias towards wanting the results of this study to be positive. Nevertheless, the absence of concrete evidence demonstrating the growth of the SA program is a significant concern, prompting the consideration that if there hasn't been apparent documented progress over the course of its decade-long implementation, the effectiveness of this intervention may be in question. This could negatively impact my ability to see transformative change in the data, as my previous experiences have predisposed my expectations to see limited to no results. As I analyze this data, I must remain aware of my previous exposure to the SA influencing my perspective, and in turn, ensure diligence and intentionality through the data assessment process. The mixed-method study design allowed me to mitigate these effects, by assessing the data from all possible perspectives. This was achieved through data integration: through the merging of quantitative and qualitative data to provide a holistic view of the research question or problem; data transformation: converting open-ended survey questions to quantifiable formats for comparison; data triangulation: comparing results from different data sources and methods to ensure consistency, reliability, and validity; and sequential analysis, where data was analyzed chronologically, starting with quantitative, and using this to inform the analysis of the qualitative (Fetters et al., 2013). By combining these strategies, researchers can analyze data from various perspectives in a mixed-method study, leading to a more comprehensive and nuanced understanding of the research topic. For this study, my greatest priority is discovering a true answer to the proposed questions of this study, and therefore I want to be mindful to check these biases

as I read and analyze. However, I am aware that my familiarity with the program and the setting could allow me to overlook some critical or otherwise unique pieces of information due to desensitization.

In acknowledging that I am biased as the researcher, ensuring the credibility and validity of my study design and analysis was paramount. As stated by Stake (1995), it is commonly suggested that as a qualitative researcher, multiple perspectives are to be represented in the interpretation, as there is no way to determine the best view. Therefore, triangulation was implemented in this study for these reasons. Triangulation in a qualitative study works by combining multiple data sources, methods, or theories to cross-validate findings (Stake, 1995). This approach helps researchers to enhance the credibility and reliability of their results through the convergence of evidence from different angles. By triangulating data, I can mitigate biases, improve the depth of analysis, and provide a more comprehensive understanding of the research topic. Thus, triangulation was embraced through the structure of the study itself involving mixed methods research. To understand the research problem in its truest form, compounding angles were used, as data was collected at different time points, from multiple people, using varying methods, all of which were integrated in the development of emergent themes. Through this, validation is supported through not only assuming the meaning of an observation, but then revisiting this interpretation through additional observations (Stake, 1995). Such application builds trustworthiness, aids in avoiding the risk of my biases and assuages the disadvantages of using only one method in the conduction of this study.

CHAPTER FIVE: QUANTITATIVE RESULTS

Complete data sets of participant responses were used to compare the participants' philosophy and educational practices pre- and post-intervention, as well as to assess any changes in beliefs and practical implementations within the classroom after teaching with the SA for a three-month school semester. Analysis of the pre- and post-intervention data revealed no statistically significant differences between the two and three time points ($p > .05$). Due to the absence of significant findings in the comparative analysis, further inferential statistical tests, such as t-tests or ANCOVAs, were not deemed appropriate. Therefore, descriptive statistics were employed to provide a comprehensive summary and characterization of the dataset, including measures of central tendency, variability, and distribution. This approach allowed for a detailed examination of the data and facilitated the exploration of patterns, trends, and relationships within the variables of interest.

Question One Analysis

Descriptive Statistics

Complete data sets varied relative to the research question assessed. As this data included three different intervals, fluctuation of numbers was expected due to attrition and technical problems with online surveys. In addition, incorrect participant IDs also occurred, therefore disqualifying some data sets from being assessed for change across all three collection points. The final number of complete data sets, those participants that successfully completed all three surveys, meeting eligibility criteria, and had traceable, valid participant IDs as provided in the study, was seven. Thus, change across the start to finish of this study could only be assessed with this sample population of n=7 (participant

IDs 0104, 0105, 0107, 0402, 0405, 0410, 0416). These participants are believed to be the most accurate representation for true philosophical and

practical change found following the intervention training and the three months of practical application within their own classrooms. Descriptive statistics were used to identify the change present in these seven participants pre- and post-intervention. This comparison is provided in Table 4.

Survey B was used to assess change of philosophical beliefs pre- and post-training, as it was prior to their opportunity to practice, and immediately following their training completion. Survey C was then used no earlier than three months following the training completion, to assess the change in both the philosophical and practical teaching methods following independent time to practice. Thus, Table 3 demonstrates the response frequency of the Likert-scaled questions for the 24 survey items of Part-One across all three surveys.

However, additional sample sizes were also deemed helpful in appropriately addressing the research questions. As mentioned, the philosophical change that occurred from the intervention itself was also of interest to the researcher, therefore, those participants that successfully completed Part-One of survey A and B were analyzed in Table 5. This was relevant to address the change in teacher philosophies, or lack thereof, that occurred between these two data points, in which the intervention of the Stoplight 101 course, was completed.

The change that occurred solely between data point one and two was relevant in addressing the change this intervention had in modifying teacher beliefs. The demographics for both discussed populations are included in Table 6.

Table 4

Responses of All Part-One Survey Completers to Each Survey Item, in Frequencies and Percentages, by Section, n=7

Survey Question Item	Data Collection Pt 1					Data Collection Pt 2					Data Collection Pt 3				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Classroom Environment:															
1) Fear of punishment is an effective way to ensure excellent academic performance from students.	6	1				7					7				
2) The use of pressure through time constraints and threats is necessary for adaptive learning to occur.	5	1		1		6	1				7				
3) Classrooms should be a place of enjoyment for learning					7	1				6		1			6
4) Constant and carefully monitored supervision of students by teachers is required for children to be safe at school			1		6	1				6					7
5) Providing breaks (i.e., recess, snacks, etc.) for students several times a day is important for learning		1			6					7					7
6) Even when a student is at potential risk for abuse at school (e.g., emotional, physical, sexual, etc.) I always follow the safety protocols put in place [a]	2[a]	1[a]	1[a]	1[a]	1[a]	3			3	1	1	1			5
7) Just as I provide feedback to my students, I also encourage feedback from them about their level of understanding of the course content, expression of their needs, how they are feeling, etc	1				6					7					7
8) Memorization is the most effective way to learn the content that I teach in the classroom	5			2		4	1			2	5	1		1	

Survey Question Item	Data Collection Pt 1					Data Collection Pt 2					Data Collection Pt 3				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
9) I encourage student participation in my classroom (e.g., feeling free to ask questions, providing them opportunity for group work, etc.)					7					7				1	6
Behaviour Management:															
10) When managing disobedient students, I most frequently use physical punishment (i.e., hitting, caning, etc.) over other methods of discipline	6	1				7					7				
11) I am aware of other classroom management approaches and strategies (other than those discussed in the Stoplight Approach) that do not include verbal threats or physically punishing students	1			1	5	1			1	5	1			1	5
12) I believe verbal and physical aggression between students should not be tolerated					7	2				5	1				6
13) I help my students manage their emotions without using fear tactics (e.g., threats, physical punishment, etc.)				2	5				2	5	1				6
14) I use violence and aggression (i.e., physical, verbal, etc.) to resolve teacher-student or student-student disagreements while in school	7					7					7				
15) Violence (i.e., physical, verbal, etc.) is the most effective method of discipline to stop bad behaviour at school [a]	6 [a]					6				1	7				
16) I understand that circumstances at home may be affecting a student's performance in class					7					7	1				6
Relationship Building:															
17) When needed, I encourage students to talk about how they are feeling while in class or on a one-to-one basis				1	6				2	5					7
18) I understand that each of my students have unique strengths					7					7					7

Survey Question Item	Data Collection Pt 1					Data Collection Pt 2					Data Collection Pt 3				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
and weaknesses (i.e., academic, personal, physical, social)															
19) My students should always feel safe with me, physically and emotionally					7					7					7
20) Protecting a student's self-worth is as important as feeling respected as their teacher					7					7					7
21) Academic success is the most important aspect of schooling	3	3		1		4	1	1	1		3	2		1	1
22) Just as my students listen to me, I also listen to them when needed					7					7					7
23) The best teachers have the most obedient students	2	1		1	3	3		1		3	2	1		1	3
24) To the best of my ability, when I assess my students, I consider their individual strengths and weaknesses (i.e., academic, personal, physical)	1				6	1				6					7

Note. 1 = Strongly Disagree, 2 = Somewhat Disagree, 3 = Neither Agree nor Disagree, 4 = Somewhat Agree,
5 = Strongly Agree
[a] = Missing data due to technical issues

Table 5

Responses by Participants Who Completed First Two Surveys to Each Survey Question Across the First Two Data Collection Points in Frequencies by Section, n=18 p.62

Survey Question Item	Data Collection Pt 1					Data Collection Pt 2				
	1	2	3	4	5	1	2	3	4	5
Classroom Environment:										
1) Fear of punishment is an effective way to ensure excellent academic performance from students.	12	3	1	0	2	16			1	1
2) The use of pressure through time constraints and threats is	12	2	1	3		15	1	1	1	

Survey Question Item	Data Collection Pt 1					Data Collection Pt 2				
	1	2	3	4	5	1	2	3	4	5
necessary for adaptive learning to occur.										
3) Classrooms should be a place of enjoyment for learning					18	1				17
4) Constant and carefully monitored supervision of students by teachers is required for children to be safe at school		1	1		16	3			2	13
5) Providing breaks (i.e., recess, snacks, etc.) for students several times a day is important for learning	2	1		1	14	1			2	15
6) Even when a student is at potential risk for abuse at school (e.g., emotional, physical, sexual, etc.) I always follow the safety protocols put in place [a]	3 [a]	2 [a]	2 [a]	3 [a]	7 [a]	5	1	1	3	8
7) Just as I provide feedback to my students, I also encourage feedback from them about their level of understanding of the course content, expression of their needs, how they are feeling, etc	1	1			16				1	17
8) Memorization is the most effective way to learn the content that I teach in the classroom	9	1	1	5	2	11	1		4	2
9) I encourage student participation in my classroom (e.g., feeling free to ask questions, providing them opportunity for group work, etc.)				1	17				1	17
Behaviour Management:										
10) When managing disobedient students, I most frequently use physical punishment (i.e., hitting, caning, etc.) over other methods of discipline	16	1		1		18				
11) I am aware of other classroom management approaches and strategies (other than those discussed in the Stoplight Approach) that do not include verbal threats or physically punishing students*	1	1	1	4	10	4			3	11

Survey Question Item	Data Collection Pt 1					Data Collection Pt 2				
	1	2	3	4	5	1	2	3	4	5
12) I believe verbal and physical aggression between students should not be tolerated	1				17	5				13
13) I help my students manage their emotions without using fear tactics (e.g., threats, physical punishment, etc.)	1			3	14	1			2	15
14) I use violence and aggression (i.e., physical, verbal, etc.) to resolve teacher-student or student-student disagreements while in school	18					17			1	
15) Violence (i.e., physical, verbal, etc.) is the most effective method of discipline to stop bad behaviour at school [a]	16 [a]				1 [a]	17				1
Relationship Building:										
16) I understand that circumstances at home may be affecting a student's performance in class	1		1		16	1				17
17) When needed, I encourage students to talk about how they are feeling while in class or on a one-to-one basis				1	17				2	16
18) I understand that each of my students have unique strengths and weaknesses (i.e., academic, personal, physical, social)	1				17					18
19) My students should always feel safe with me, physically and emotionally					18					18
20) Protecting a student's self-worth is as important as feeling respected as their teacher				1	17				1	17
21) Academic success is the most important aspect of schooling	6	5		4	3	9	3	3	1	2
22) Just as my students listen to me, I also listen to them when needed					18					18
23) The best teachers have the most obedient students	6	2	1	2	7	6	3	1	1	7
24) To the best of my ability, when I assess my students, I consider their individual strengths and	1			2	15	1			1	16

Survey Question Item	Data Collection Pt 1					Data Collection Pt 2				
	1	2	3	4	5	1	2	3	4	5
weaknesses (i.e., academic, personal, physical)										

Note. 1 = Strongly Disagree, 2 = Somewhat Disagree, 3 = Neither Agree nor Disagree, 4 = Somewhat Agree,
5 = Strongly Agree
[a] = Missing data due to technical issues

Table 6

Demographics of participants who are Finishers (of survey one and two), and Completers (survey 1, 2, 3)

Variables	n=18 Values, n (%)	n=7 Values, n (%)
Age (years)		
18-20	0 (0.0)	0 (0.0)
21-25	3 (16.7)	0 (0.0)
26-30	4 (23.5)	2 (28.6)
31-35	3 (16.7)	1 (14.3)
36-40	7 (38.9)	4 (57.1)
41-45	1 (5.6)	0 (0.0)
Sex		
Female	13 (72.2)	5 (71.4)
Male	5 (27.8)	2 (28.6)
Other	0 (0.0)	0 (0.0)
Years teaching		
< 1	1 (5.6)	0 (0.0)
1-5	8 (44.4)	3 (42.9)
6-10	3 (16.7)	2 (28.6)
11-15	5 (27.8)	2 (28.6)
16-20	0 (0.0)	0 (0.0)
> 20	1 (5.6)	0 (0.0)
Average class size (number of students)		
<10	1 (5.6)	0 (0.0)
11-20	8 (44.4)	4 (57.1)
21-30	3 (16.7)	1 (14.3)
31-40	5 (27.8)	1 (14.3)
41-50	0 (0.0)	0 (0.0)
50+	1 (5.6)	1 (14.3)
Previous exposure to SA		
Yes	8 (44.4)	4 (57.1)
No	10 (55.6)	3 (42.9)

Thematic Analysis of Open-Ended Survey Items

Effects of the Intervention on Teachers' Practices. A total of 11 participants responded to five open-ended questions in Part-Three of Survey C . The first question read, "Explain the different ways the Stoplight Approach training has affected your teaching practices. Be as specific as possible in outlining how your practices have changed as a result of the training program." Based on participants' responses, themes emerged, including: acknowledgment and tolerance of varying brain states', emotions and abilities of students, adopting a relational approach, enhanced communication skills, engagement in self-reflection, removal of fear, classroom management abilities, and accountability between students and teachers.

The most frequently reported theme was that of participants building a relational approach into their practice, with a total of six participant responses aligning with this theme.

One participant expressed the presence of an improved relationship with students, while others expanded on the caring aspects of the relationship that were now present between them as the teacher and their students. For example, "I learnt to listen more to my students without judgment;" "to see what lies below the surface of [the] emotions of the learners;" "encouraging the children" in general, and "encouraging empathy towards one another."

For this question, three themes were reported as the second most frequent. The first was the acknowledgement of, and tolerance for, the varying brain states, emotions, and abilities of students, with five participants instigating this theme. Participants described modifications to their teaching practices that now incorporated labelling and

understanding brain states, for example, being able to "easily identify when a child is in red, yellow, or green." They also highlighted an awareness of how brain states can change, oscillating between both ideal and suboptimal functioning for students. For example, "bringing them first to green" as a means of optimizing teaching, and "to teach only when the students' mind is ready to learn," demonstrating a change in previous perspectives towards student learning.

With another five counts of teachers having reported enhanced communication methods with students, this was also the second most prominent theme. One participant noted a change in her language, stating, "what the spotlight approach has done for me is to give language to different emotions and emotional states." Another teacher identified the freedom of mutual communication between students and teachers as being affected, sharing that "free communication is everyday." The use of communication had also been integrated to deescalate hardships and regulate students. For example, one participant shared, "talk[ing] to the children through various behaviour incidents" to "respond adequately to the children's needs." Another stated the change as such: "What might've caused an uproar previously can be sorted with a conversation," demonstrating a new means of using communication with students to handle conflict.

The last second most frequent emerging theme was the improvement of teachers' classroom management abilities. Through the philosophies and practices provided in the training, one participant stated that the Stoplight Approach taught them how "to handle my students well." Participants (n=2) identified a confidence in this area that they previously did not have, as one stated, "handling conflict has become easy." In addition,

teachers noted “an understanding on how to approach situations” as the SA has provided “best strategies to manage my class.”

Another theme that was found in participant responses was an intentional practice of being aware of self and of others. Through the intervention, teachers reported adopting an intentionality of reflecting on their own emotional state to sustain self-regulation for best practice. For example, “I am intentional about self-reflection and awareness to ensure that I manage my emotions,” “It is helping me to practise pausing, reflecting and engaging” and “this enables me to see what lies below the surface of my emotions and those of the learners.”

Removing fear-based approaches from their practices was also an emerging theme as reported by two teachers. For these two participants, they shared, “my teaching has changed in the way that in the past I would chip in a little bit of fear based approach to have the students do what I expect them to, but now, I no longer use it” and, “I also had to change my fundamental approach from instilling fear … to not operate in fear which creates inhibitions and fear of expression.”

Lastly, collective accountability was also identified as being integrated into one participant’s practice. They share, “I am holding myself and the learners accountable for their behaviour, actions and the good or bad consequences thereof.” A frequency count and quotations for each theme can be found in Table 7.

Table 7

Frequency and Quotes for Themes Associated with the Effects of the Intervention on Teacher’s Practices

Theme and Frequency Count	Quotes

Adopting a relational approach (6)	"I also had to change my fundamental approach from instilling fear to being relational in my approach to encourage the children." "Improved relationship between me and my learners." "I have learnt to listen more to my students without judging." "…Encouraged empathy towards one another." "This enables me to see what lies below the surface of [the] emotions of the learners." "It has helped me connect more with the children"
Acknowledgment and tolerance of varying brain states, emotions, and abilities of students (5)	"I can easily identify when a child is in red, yellow or green." "To understand the different abilities of students." "I have learnt to teach only when the students mind [sic] is ready to learn." "Bringing them first to green or yellow before handling the issue at hand." "To check their brain states."
Student management abilities (5)	"Handling conflict has become easy. As I am able to protect both children in conflict and yet show them their conflict wasn't necessary." "To handle my students well." "Respond adequately to the children's needs" "An understanding on how to approach situations."

	"[It] has given me the best strategies to manage my class."
Enhanced communication (5)	"What the spotlight approach has done for me is to give language to different emotions and emotional states." "Free communication is everyday." "I have also attempted to talk to the children through various behaviour incidents" to "What might've caused an uproar previously can be sorted with a conversation." "Communication between I and the students is clearer."
Intentional practice of being aware of self and others (3)	"I am intentional about self-reflection and awareness to ensure that I manage my emotions." "It is helping me to practise pausing, reflecting and engaging." "This enables me to see what lies below the surface of my emotions and those of the learners."
Removal of fear-based approaches (2)	"My teaching has changed in the way that in the past I would chip in a little bit of fear based approach to have the students do what I expect them to, but now, I no longer use it." "I also had to change my fundamental approach from instilling fear … to not operate in fear which creates inhibitions and fear of expression."

Reduced conflict (1)	"With the spotlight approach my classes are much calmer."
Accountability (1)	"I am holding myself and the learners accountable for their behaviour, actions and the good or bad consequences thereof."

The Impact in Teacher's Classrooms of Implementing the Intervention.

During the second administration of the Teacher Philosophy Survey, the second open-ended question asked:

> Explain how the implementation of the Stoplight Approach (as outlined in your response to question one) has impacted your classroom (e.g., improved relationships, enhanced student performance, less conflicts). Be as specific as possible in outlining the impact your altered teaching practices have had on students, the classroom environment, and you.

Based on participant's responses, the themes that emerged included (a) positive socio-emotional outcomes of students, (b) agreeable classroom environments, (c) improvement of student academics, (d) enhanced relationships, and (e) an increase of student dialogue in class.

Again, two themes appeared most frequently. One of these was of positive student social-emotional developments, with seven responses from participants supporting this theme. Two participants highlighted the occurrence of students' ability to self-manage, as

they began taking responsibility for their mistakes. The ability for students to emotionally regulate was also deemed to be present by two participants, as one started noticing how "children are managing their emotions". An emotional consideration of self and others was also identified. For example, "learners can easily tell what state I am in or their fellow students e.g., red, green and yellow." With this awareness also came increased sensitivity, as students were notably kinder and more empathetic to others according to another participant.

The other most prominent theme that emerged was relating to a pleasant classroom environment, and was identified on six accounts by five different participants. Teachers noted an agreeability present with the students in the classroom, for example, "understanding the value of living harmoniously in their community," and a "calmer-class experience." Of particular note were reduced instances of conflict were specifically highlighted by three participants. Additionally, an overall increase in enjoyment for students was highlighted, as one participant stated that "the children are happier."

An increase of student dialogue in class was another theme that arose in response to the impact experienced in the classroom following the intervention. Participants stated, "the children are responsive," "students are more open to share their feeling [sic]," and students "are more willing to ask questions."

In addition, positive academic student outcomes were another emerging theme. Two participants highlighted specifically "better concentration" and students who "engage more in learning" as an asset to their academic success.

Another developed theme was that of an enhanced student-teacher relationship. One participant shared, "this has helped improve on the [sic] teacher student relationship

much more than the past." Teachers commented on the development of the student-teacher relationship into one that was increasingly personable.

Lastly, improved discipline tactics were noted by one participant to conclude all themes that emerged in the responses to the second open-ended question. This data can be found in the following Table 8.

Table 8

Frequency and Quotes for Themes Associated with the Impact in Teacher's Classrooms of Implementing the Intervention

Theme and Frequency Count	Quotes
Positive student social-emotional skill developments (7)	"Self-manage themselves."
	"Children are managing their emotions."
	"Learners can easily tell what state I am in or their fellow students e.g., red, green and yellow."
	"Kinder and more empathetic engagement amongst learners."
	"Can take responsibility of their mistakes."
	"They find solutions easily."
	"Are positive to corrections."
Pleasant classroom environments (7)	"There's less conflicts among students."
	"The children are happier."
	"Understanding the value of living harmoniously in their community."
	"Calmer class experience"
	"calm class"
	"Faster conflict resolutions, less conflict."
	"Less conflict."
Increase of student dialogue in class (5)	"Students are more open to share their feeling[s]."
	"Are more willing to ask questions."
	"The children are responsive"

	"The children have come more free with me and enjoy sharing their ideas with me" "Improved communication"
Positive academic student outcomes (3)	"This has resulted into improved performance." "Engage more in their learning." "Better concentration."
Enhanced student-teacher relationship (2)	"Improve on the teacher student relationship much more than the past." "It has brought us closer to each other." "Improved relationship"
Modified classroom strategies (2)	"Further improved on the discipline of my students" "well timetabled brain breaks"

Question Two Analysis

Descriptive Statistics

By the addition of Part-Two in Survey B and C, these surveys were designed to also assess the intervention itself. Therefore, to address the secondary research question, analysis of the intervention itself from the participant perspective was explored in Part-Two of Survey B. Therefore, eligible participants who completed this portion of the survey were deemed valid in providing relevant data for the researcher to review the quality of the intervention. For this assessment, n=16 was used, with a drop out of two participants due to their incompletion of Part-Two of the survey. These results are

reported in Table 9. Frequency of responses were analyzed question-by-question to indicate the effect and ineffective aspects of the approach.

Table 9

Responses by Finishers of Part-One, Survey One and Two to Each Survey Question on Survey B, in Frequencies and Percentages, by Section, n=16

Survey Question Item	Data Collection Pt 2				
	1	2	3	4	5
Q1: The Stoplight 101 training course was effective because…					
a. The length of the training was appropriate for me to learn the most salient points.		2 (12.5)		1 (6.3)	13 (81.3)
b. The virtual presentation mode of delivery was appropriate for my learning needs.				1 (10.5)	15 (93.8)
c. The content of the training course was well explained.				1 (6.3)	15 (93.8)
d. I have new knowledge, skills, and strategies that I can implement into my classroom.			1 (6.3)	1 (6.3)	14 (87.5)
Q2: Below are a number of topics discussed during *The Stoplight Approach* training. Select the most appropriate response outlining **whether you have learned enough about the topic** to make an impact on your future instructional practices.					
a. Understanding your Stoplight, including resiliency and how it is developed.		1 (6.3)		2 (12.5)	13 (81.3)
b. Brain biology and how the brain functions (i.e., brain stem, limbic system, neocortex).				4 (25.0)	12 (75.0)
c. The three brain states, including labelling the brain with Stoplight colours and their meanings (Red, Yellow, Green).				2 (12.5)	14 (87.5)
d. The heart of Stoplight, including the benefits of valuing relationship building with students (EQ and IQ).				2 (12.5)	14 (87.5)
e. Trauma, triggers, and how they affect us.				7 (43.8)	9 (56.3)
f. Recognizing brain states, including learning how to identify emotions in yourself and others (Red, Yellow, Green).				1 (6.3)	15 (93.8)
g. Managing brain states, including learning what you can do when a brain state is activated.	1 (6.3)			3 (18.8)	12 (75.0)
h. Understanding empathy and connection.				2 (12.5)	14 (87.5)

i.	Discipline and punishment, including fear-based approaches versus relationship-based approaches.			2 (12.5)	14 (87.5)
j.	Developing moral identity through intentional choices.		1 (6.3)	2 (12.5)	13 (81.3)
k.	The ABC's of Stoplight, including a how-to guide for developing healthy relationships.			2 (12.5)	14 (87.5)
Q3: As discussed in the training, below are a number of practical ways for teachers to build relationships with their students. Select the most appropriate response outlining how important these concepts are to incorporate in your future instructional practices.					
a.	Labelling and understanding the emotions of my students (i.e., understanding when my students are in Red, Yellow or Green).				16 (100)
b.	Connect with my students through acceptance and validation of their needs (i.e., acknowledging when my students are in Red, Yellow or Green).			1 (6.3)	15 (93.8)
c.	Labelling and understanding my emotions (Red, Yellow, Green).				16 (100)
d.	Self-reflection on my own weaknesses and triggers.				16 (100)
e.	Engaging in my own self-care.	1 (5.9)		2 (12.5)	14 (87.5)
f.	Removing current classroom management strategies that evoke fear in my students.				16 (100)

Note. 1 = Strongly Disagree, 2 = Somewhat Disagree, 3 = Neither Agree nor Disagree, 4 = Somewhat Agree,
5 = Strongly Agree.
n (%) represents the frequency and percentage of respondents' answers in each category.

A similar table was also used to assess the change of only those participants who completed the whole process. This allowed for a comparison of participant responses before applying their acquired knowledge with those after receiving the training and having the opportunity to apply it in practice. Survey items were broken down to address the effectiveness and ineffectiveness of the style and content of the training from the perspective of the participants.

The seven participants' beginning scores were compared to their final scores for Part-One of Survey A and C in Table 10 as a measure of consistency of the review within participants' view of the program before and after having time allotted to use the intervention in a classroom themselves. The frequency of responses for the seven complete data sets, before and after implementation practice, as collected in Part-Two of Survey B and C, is displayed in this table.

Table 10

Responses by Finishers of Part-Two, Survey A and B, to Each Survey Question, in Frequencies and Percentages, by Section, n=7

Survey Question Item	Data Collection Pt 2, n=7					Data Collection Pt 3, n=7				
	1	2	3	4	5	1	2	3	4	5
Q1: The Stoplight 101 training course was effective because…										
a. The length of the training was appropriate for me to learn the most salient points.					7 (100)				2 (28.6)	5 (71.4)
b. The virtual presentation mode of delivery was appropriate for my learning needs.				1 (14.3)	6 (85.7)					7 (100)
c. The content of the training course was well explained.					7 (100)					7 (100)
d. I have new knowledge, skills, and strategies that I can implement into my classroom.				1 (14.3)	6 (85.7)					7 (100)
Q2: Below are a number of topics discussed during *The Stoplight Approach* training. Select the most appropriate response outlining **whether you have learned enough**										

Survey Question Item	Data Collection Pt 2, n=7					Data Collection Pt 3, n=7				
	1	2	3	4	5	1	2	3	4	5
about the topic to make an impact on your future instructional practices.										
a. Understanding your Stoplight, including resiliency and how it is developed.				1 (14.3)	6 (85.7)					7 (100)
b. Brain biology and how the brain functions (i.e., brain stem, limbic system, neocortex).				2 (28.6)	5 (71.4)				2 (28.6)	5 (71.4)
c. The three brain states, including labelling the brain with Stoplight colours and their meanings (Red, Yellow, Green).				1 (14.3)	6 (85.7)				2 (28.6)	5 (71.4)
d. The heart of Stoplight, including the benefits of valuing relationship building with students (EQ and IQ).					7 (100)				1 (14.3)	6 (85.7)
e. Trauma, triggers, and how they affect us.				3 (42.9)	4 (57.1)				1 (14.3)	6 (85.7)
f. Recognizing brain states, including learning how to identify emotions in yourself and others (Red, Yellow, Green).					7 (100)					7 (100)
g. Managing brain states, including learning what you can do when a brain state is activated.				1 (14.3)	6 (85.7)					7 (100)
h. Understanding empathy and connection.					7 (100)					7 (100)
i. Discipline and punishment, including fear-based approaches versus relationship-based approaches.					7 (100)					7 (100)

Survey Question Item	Data Collection Pt 2, n=7					Data Collection Pt 3, n=7				
	1	2	3	4	5	1	2	3	4	5
j. Developing moral identity through intentional choices.				1 (14.3)	6 (85.7)				2 (28.6)	5 (71.4)
k. The ABC's of Stoplight, including a how-to guide for developing healthy relationships.					7 (100)				2 (28.6)	5 (71.4)
Q3: As discussed in the training, below are a number of practical ways for teachers to build relationships with their students. Select the most appropriate response outlining how important these concepts are to incorporate in your future instructional practices.										
a. Labelling and understanding the emotions of my students (i.e., understanding when my students are in Red, Yellow or Green).					7 (100)					7 (100)
b. Connect with my students through acceptance and validation of their needs (i.e., acknowledging when my students are in Red, Yellow or Green).					7 (100)					7 (100)
c. Labelling and understanding my emotions (Red, Yellow, Green).					7 (100)					7 (100)
d. Self-reflection on my own weaknesses and triggers.					7 (100)					7 (100)
e. Engaging in my own self-care.					7 (100)				1 (14.3)	6 (85.7)
f. Removing current classroom management strategies					7 (100)				1 (14.3)	6 (85.7)

Survey Question Item	Data Collection Pt 2, n=7					Data Collection Pt 3, n=7				
	1	2	3	4	5	1	2	3	4	5
that evoke fear in my students.										

Note. 1 = Strongly Disagree, 2 = Somewhat Disagree, 3 = Neither Agree nor Disagree, 4 = Somewhat Agree, 5 = Strongly Agree,
n (%) represents the frequency and percentage of respondents' answers in each category.

Thematic Analysis of Open-Ended Survey Items Relating to Question Two

Barriers Encountered in the Implementation of New Intervention Principles.

When asked the question, "Did you encounter barriers to the implementation of principles from the Stoplight Approach at your school? If so, outline what those barriers were and how they impacted you," eight out of the eleven participants stated that there were no barriers, and one participant without a descriptive response. One participant mentioned an early epiphany of self-awareness which aided in the ease of implementation.

However, two participants suggested a barrier did exist. This barrier was similar for both, as they suggested regressing to their old practices was an obstacle to overcome. When pressure was high, teachers noted a tendency or desire to return to their old approach due to comfort, familiarity, and the function of the old approach in producing immediate results.

These theme and participant responses are included in Table 11.

Table 11

Frequency and Quotes for Themes Associated with the Barriers Encountered by Teachers in the Implementation of Intervention Principles in Their Schools

Theme and Frequency Count	Quotes
No Barriers (8)	"No. I realized early on how my own emotional state while feeling overwhelmed and anxious was feeding into my practice and into the children and tried to be more self aware." "Actually I did not encounter any barriers because most of the principles from spotlight approach were already in existence at my class and in my classroom. It just helped me consolidate on my approaches."

	"No. The school is very supportive and this approach has enhanced our school values" "No." (two responses) "None." "Not at all"
Overcoming regressive tendencies to use old practices (2)	"Preconceived ideas and past experiences rear their ugly heads from time to time." "Sometimes when children are in yellow, they are so disruptive and yet a lot needs to [be] covered in class. This is because mine is a candidate class preparing children for a national exam and yet they lost a lot of time in the pandemic."

Better Supports in Implementing the Intervention. In the fourth open-ended question of the survey, participants were asked, 'How do you think you could be better supported in implementing the Stoplight Approach into your teaching practices?' Based on participants' responses, a common theme addressing adjustments to the training was identified. The theme of expanding the training in three different ways emerged, including for training to be ongoing, to an extension of formal training to others, and for the training content to be further interactive and experiential in nature.

The first way in which participants stated the training could have been expanded and modified to better support the teachers was through training expansion. Specifically, teachers desired for it to be an ongoing and continual process to enhance support with intervention implementation. One participant stated, "more talks and visits to my school and class" and another requested "more seminars," while two other participants stated

"refresher courses" as helpful ways to continue implementation support. Another teacher suggested "teacher support groups" as a method for ongoing assistance.

Additionally, an extension of the formal training to include all stakeholders in the community was another emerging theme. One participant expressed, "the school environment needs to be such a one that fosters the stoplight approach values and practices." Participant responses suggested the inclusion of students specifically for structured training as an aid in allowing the holistic cultivation of such an environment, and thus further support for the teachers. For example, participants reported the desire for the trainers to be "training students on this approach too" and "teaching the stoplight approach to the students." For this study in particular, teachers were required to extend the SA knowledge to their students, as there was no additional training made available to the students by SA trainers. The SA has resources aimed towards children that are accessible to teachers, however, student training beyond the teachers' input was suggested to be advantageous according to these participants.

Employing both creative and practical methods in the training was deemed another avenue through which two participants believed they could be better supported. Using more engaging teaching methods in the training was suggested, such as "having more videos and pictures talking more about the different ways to handle problems at school and making them accessible to students and teachers at large." In addition to lectures and small groups, these teachers specifically highlighted the benefits of visuals and examples provided by skilled, experienced trainers. Demonstrations were requested by another participant, such as "in class observation" and "setting of scenarios" as an aid for her understanding and implementation. This is demonstrated in Table 12.

Table 12

Frequency and Quotes for Themes Associated with Suggested Better Supports for Teachers in Implementing the Intervention in their Practices.

Theme and Frequency Counts	Quotes
Expansion of formal training…	
To be ongoing: (4)	"More talks and visits of your team to my school and class."
	"Just more seminars with the Stoplight"
	"Refresher courses"
	"Refresher courses about Stoplight approach"
	"Teacher support groups"
To others: (3)	"The school environment needs to be such a one that fosters the stoplight approach values and practices".
	"Training students on this approach too."
	"Teaching the stoplight approach to the students."
To have further interactive and experiential content: (2)	"Having more videos and pictures talking more about the different ways to handle problems at school and making them accessible to students and teachers at large."
	"In class observation and setting of scenarios to help understand how best to approach complicated situations when parents are also involved"

Feedback on the Stoplight Training Process. The last open-ended question of the survey asked, 'Is there any other feedback you would like to provide regarding the Stoplight training process?' Three themes that emerged included positive feedback of the intervention that included an appreciation for the training, the relevancy and usefulness of the intervention, and the quality of the training. The first most frequently noted theme was that of the relevancy and usefulness of the intervention, highlighting another theme. For example: "I am using this approach every day" and "this process has been revelational." Secondly was the theme of appreciation, with two participants saying, "thank you," and another stated being "very grateful for the stoplight training." Lastly, one participant noted the effectiveness of the intervention due to quality. These responses and their frequencies are displayed in Table 13.

Table 13

Quotes for Themes Associated with the Feedback of Teachers on the Stoplight Training Process

Theme and Frequency Counts	Quotes
Relevancy and usefulness of the intervention (5)	"Am using this approach every day of my life both at school and home. Especially the realization of the Red Yellow and Green states."
	"I found the material thoroughly thought provoking and in many ways it resonated with a gracious and kind spirit and a culture quite unlike the culture where the adult is always

	right. It would make an [sic] great parenting tool for behaviour management too." "It has given me ways of studying my own emotions and how I can control it in and outside class." "This process has been revelational." "Stoplight is the great method to teach children."
Appreciation for the training (4)	"Thank you for the training." "Thank you so much for this opportunity." "I am very grateful for the stoplight training, because with it the relationship between the teacher and students is improved, the academic performance equally improves as well as reducing level of disciplinary cases." "Thank you so much stoplight."
Quality of the training (2)	"The training process was well done as I clearly understood the spotlight approach." "No. Everything is perfect."

Open-Ended - Survey B, Question Two

The second section of the second administered Teacher Philosophy Survey included one open-ended question, which read "Are there any additional topics you would have liked addressed in this training?" Twelve participants selected "No," while five participants stated "Yes." Out of the five who stated "Yes," three of them identified topics in which they would like more information. The themes identified include enhancing student expression in class, monitoring stoplight progress of children, and

alternative methods of student discipline. Teacher responses were as follows: “how to monitor the progress of my stop light approach to the children at home and school;” “types of punishments that are not aggressive and how to best manage that;” and “advising students to feel free to share their brain states, etc.”

In addition, 16 out of the 18 participants also answered the following question: “Explain one way you believe you can implement this approach in your classroom.” The teacher responses are in Table 14.

Table 14

Quotes and Frequencies for Themes Associated with the Feedback of Teachers on Practical Ways They Believe They can Implement the Stoplight in Classrooms

Theme and Frequency Counts	Quotes
Setting SA standards and expectations in the classroom with students (6)	“By first taking my students through the Stoplight approach training for them to understand better”
	“Communicate classroom expectations to the learners and hold the accountable”
	“help teach them to respect others.”
Communication with students (4)	“Encourage the learners to freely express their feelings and views”
	“Continous [sic] training of my children”
	“Doing a stoplight check at the beginning of each day for the teachers and students alike”
	“The use of circle time to reflect upon our day's work”

Building positive relationships with students (4)	"Building good personal relationships with the children in class in order to make them feel safe." "A keen interest and understanding of the individual children… And an interest in their welfare." "Respecting the students and understanding where they fall." "If a student falls in Red and Yellow, I will have to make sure I follow them up and see the reason behind them being in Yellow and Red."
Personal Applicability (4)	"act as a perfect role model in managing anger." "To respect everyone." "I believe the first thing I should do every morning is look within, reflect on how I feel, give myself a few affirmations at the beginning of the day to help me eliminate any negativity or red light emotions that might surface and have a negative impact later on. I believe how you start your day is very important in regards to how the rest of it might play out. Adapt morning routines and calming exercises such a breathing techniques in case things happen to go [sideways]. Children can feel and sense energies and tend to feed off of them, I would like to be able to keep them and myself in green rain or be able to guide them there genuinely." "It starts with self awareness"
Student management (3)	"If there are misunderstandings between students or students and I the teacher, this approach can be used to resolve the problem." "When students come to class late to class, I first find out why they are late and then help them suggest ways of coming to class on time next time."
Collaboration with other teachers (1)	By encouraging collegues [sic] to embrace the approach. My team mates too, in the clubs session

CHAPTER SIX: QUALITATIVE RESULTS FOR PRIMARY QUESTION OF HOW DID THE STOPLIGHT APPROACH 101 IMPACT TEACHERS' BELIEFS AND CLASSROOM PRACTICES RELATED TO THE VALUE OF REDUCING CORPORAL PUNISHMENT IN SCHOOLS?

The focus of the current study was to identify if modification of teachers' fear-based teaching beliefs and practices was achievable through the introduction of the SA intervention. The primary question of this research was to determine how the Stoplight Approach 101 impacted teachers' beliefs and classroom practices related to the value of reducing corporal punishment in schools, as collected across all three time points. Therefore, the researcher used the seven participants who successfully completed all three surveys. How the selected intervention impacted each of these participants will be identified through thematic analysis across all participants, rather than studying each case individually.

For quantitative purposes, three themes were identified when analyzing the self-reported impact of the Stoplight 101 training intervention on teachers, namely behavioral management, classroom environment, and relationship building. However, through the qualitative analysis process, it became evident that these three specific areas were interwoven, as the data demonstrated many points of intersection and overlap. Therefore, these were not identified as overarching themes, but rather, these themes were integrated within the analysis where change appeared relevant to the experiences shared.

Pre-Intervention: A Traditional Method to Teaching

Academic achievement is a highly valued trait in Ugandan society, with a great emphasis on grades and performance at all ages and levels. This was confirmed in this

study through reports from all participants identifying student grade outcomes as a marker of their perceived success or failure as a teacher. With such immense worth placed on academic success, both students and teachers were under extreme pressures and expectations to perform . In the frontlines of education in Ugandan society, Mary explained that "*…generally, our [school] system is very high pressure.*" In most cases, the success of a school, and of individual teachers, is measured in terms of academic performance. Many headmasters demand top performance from teachers as it relates to producing top student grades in final national exams.

The Ugandan education system consists of public and private institutions. According to participants' experiences, private schools especially emphasize high student outcomes. The financial viability of these institutions is maintained through the development of a prestigious academic reputation that will warrant continued student enrolment. In this setting, if a teacher's class does not perform optimally, the teacher is at risk of losing their position. These pressures inevitably lead educators to focus on national educational requirements. With the focus specifically on academic excellence, many other educational goals are commonly overlooked. In contrast, public schools are structured slightly differently, as teacher finances are ensured through their documented attendance at school. Participants expressed that the pay at public schools is usually higher as it is a guaranteed rate subsidized by the government. If teachers arrive to work and register their attendance, payment is secured, unlike private schools, where their salary is based on the academic outcome of students. However, teachers' motivation to positively engage with students is also lessened due to other pressures. Public schools tend to have very high student-teacher ratios, making teaching an exhausting and

challenging task. In some cases, it can be difficult for the teachers to even know all their students due to the extreme class numbers. As displayed in Table 2 in the previous section, nearly half of the participants identified having class sizes greater than 21 students, with one reported 50+ students in their class. These overwhelming numbers can lead to reduced care for students' well-being and a lack of interest in developing valuable student outcomes outside of academia (Almulla, 2015). Despite reduced pressures for teachers to produce high achieving students, as compared to private schools, teachers still experience the weight of controlling student behaviours with such large class sizes. Typically, Ugandan school systems value high academic scores and compliance in the classroom from students. Thus, teachers desire students with characteristics believed to be associated with proper learning and appropriate behaviour. Mary explains that

> [Ugandan school culture] is very strict. The learner is expected to come to school, they have their brain switched on. They are ready to learn, they're well behaved, they are quiet, they don't ask questions in inappropriate times. [This is] what you would call the perfect student.

As a student, "*you're just supposed to perform at all times and you should be just this student that excels in all things no matter what.*" In Mary's description, a correct or "*perfect student*" is one who conforms, performs well, and suppresses their needs, and only speaks when spoken to. Most education systems in Uganda have a customary expectation for students to be regimented and unemotional.

With these academic and behavioral values and pressures, obedience and student compliance became markers for teachers' success. Teacher competence was thus defined by having "*perfect students*" in a "*perfect class,*" denoted by high achieving students who

listened to teacher commands and behaved appropriately. In the traditional Ugandan approach a teacher's proficiency for completing lessons is idealized. Therefore, student learning is expected to occur at the pace of the teacher's lesson rather than what is best for the student individually. Moses corroborated this reality, sharing that there was a substantial emphasis placed on "*completing the syllabus,*" With compliance and completion as the ultimate goal, "*learner-centered education*" is uncommon, as personally experienced by Christine. She shares, "*it was all about the teacher, teacher, teacher. All the time it's the teacher. [Student] emotions, [student] feelings, [student] understanding wasn't really, really considered or wasn't put first."* Regardless of individual and contextual influences, students are always expected to act *correctly* and accordingly.

With this belief system, student individuality was not valued, and student-teacher discussions were discouraged. Grace shares that "*in our culture, [students] shouldn't answer back."* Student-teacher conversations were uncommon and inhibited as students are trained to simply listen and obey. Student questions or concerns only caused a delay to the lesson and disrupted the control the teacher was working to maintain. Student inquiries and misbehaviours simply reflected the student's inability or unwillingness to learn, pay attention, follow orders, and obey teachers. Creating a dialogue with students around why a mistake or misunderstanding had occurred was not regarded as valuable or advantageous, but rather the act of immediately reprimanding and correcting was practiced. According to Rose, the expectations for students to act *perfectly* was non-negotiable. In this approach, the underlying belief that "*if a child misbehaves … it's because of the indiscipline"* was dominant. Student misbehaviors were attributed to the

lack of discipline applied by the teacher and further punishment was therefore the answer. If students expressed a need, or demonstrated unwanted behaviors, they were labelled as disrespectful and were regarded as challenging authority. Non-compliant children were assumed to be actively choosing to be "*stubborn*" and problematic.

Consequently, student individuality was also suppressed. Student needs, concerns, and opinions were viewed as distractions and annoyances, having no value. When students would successfully perform and pay attention in class, only then would they receive acknowledgement and praise. Any other characteristics outside of these behaviours were dismissed. The individuality of students was not appreciated or respected, but rather frowned upon and discouraged. In holding this philosophy and practice, establishing fear in students was actively used to reduce these disruptions. Moses explained how "s*ome students were always fearing, even when they want to ask an important question. They would just reserve it because of the fear they have toward the teacher*." In both private and public-school sectors, authoritarian teacher-to-student relationships were prominent. Teachers view themselves and are viewed by others as the masters or authority figures, with students considered subservient. This authorizes teachers to dictate the style of teacher-student engagements and the ensuing roles and expectations. This autocratic relationship created and maintained a power dynamic in the classroom environment. Teachers were primarily focused on defining these student-teacher boundaries and enforcing these structures over a holistic outlook of the students' development. Teachers would enforce their dominance and control onto students through fear-based correctional tactics. Those who listen to commands and do not question authority were reflective of ideal students and could avoid punishments. However, for

those who did not, the application of fear or pain was the most accessible and best understood method to ensure students would modify their behaviours to receive high grades and act accordingly.

As explained in Chapter 2, the presence of violence is a norm throughout many Ugandan school divisions. With punitive, reward, and results-based authority strategies in play, the power given to teachers was reinforced through the application of physical and emotional punishments on students. Corporal punishment is a known, common technique used in classroom instruction and believed to be the most effective form of behavioural management. Mary explained that when children were not acting in accordance with expectations, *"physical punishment would be used to get the child in line."* Rose described it as the following: "*this is an African school, and schools in Uganda, they believe [in] 'kiboko' here."* Kiboko is a term most used in school settings, that refers to the action of using a cane or stick to hit or punish a person and instill discipline. She continued, "*they believe that corporal punishment is the only way and the better way to handle behavior and characters of students."* It was a collective understanding amongst most respondents that, "*for Africans, it has to be serious caning. If it's not that, the children will not come to learn.*" In addition to "*caning,*" participants of this study shared other types of physical punishments they were familiar with. Moses described one involving students **"***kneeling in class maybe for a few minutes.*" Another included pinching students because they were talking. If students continued to talk, they would be pinched again. According to Rose, even at a school that identified as being non-corporal, pain-inflicted strategies were reported. Student punishments could include activities such as "*digging for the whole day, or other things that will [indirectly] inflict pain on them."*

Such fear-based strategies were alleged to yield the desired results by increasing fear and decreasing unwanted student behaviors.

In addition to corporal punishment, other fear-based tactics were used to scare students into obedience. Punitive approaches administering shame onto students were also implemented. Mary explained that under-achieving students "*would be labelled naughty or dumb or stupid."* Other common phrases included attacking the students personally, saying "*what's wrong with you?*", as shared by Grace. She also declared frequently "*telling [students] off*" as a reaction to underperformance as additional retribution to correct students' shortcomings. Sarah explained, "*I noticed for some children, …because they're naughty or they're being disorganized, [I] could find [my]self picking on them"* and engaging in victimization. This was also recognized by Christine when reflecting on her own upbringing in the Ugandan school system as a child. She expressed how poor performing and misbehaving students were actively belittled by the system, and negatively viewed by teachers. Moses agreed, noting that if a student did something "*wrong*" or "*bad*," they would be immediately judged by the teacher, and based on the behaviour, be punished accordingly. Mary agreed, as she stated that shaming students that were different in undesired ways was practiced by many teachers, and those that would stand out because of "*bad behaviour*" were either neglected or badly punished. Rose explained how she had handled student situations when they disrupted her class: "*I would assume maybe it is just [the student's] personal issues, and I would just tell [them], 'No, you have your personal issues. … you get out of the class, go and solve your issues before you will come [back].' Then as a teacher, because I don't want to waste my time for teaching, I'll proceed with the rest of the class, I'll leave her*

outside." Moses shared a similar experience with a student, yelling at the student to leave, saying "*'ah, you go out,'*" and proceeding to chase them out of the class. In addition to the threats and shaming, teachers also reported doubling down with physical punishments, having also inflicted pain on the students later. Such harsh punishments as an effective method for development and learning is a popular approach held by teachers in the Ugandan school system. After all, student obedience leads to increased classroom control, which reflects lesson progress, and lesson progression means improved academic achievement. Both classroom control and academic achievement ultimately meant job security and satisfaction.

In this context, it was not surprising to identify teachers in this study that reported using the traditional approach. Specifically, Mary and Moses reported aligning with this belief-system and using corporal punishment variations in their classroom practice before being introduced to the SA intervention. It was a shared belief amongst them that pain was conducive to maximizing the learning environment for students, a principle they held strongly within their philosophy and practice. Therefore, harsh punishments were considered the most effective method for the long-term health and adaptability of students within their current culture. Children were expected to demonstrate respect for authority figures, and abuse was the most effective means for students to learn.

Many participants, some strategically and others unknowingly, utilized fear-based tactics, as previously described, for these reasons. Rose also practiced using variations of harsh punishments on her students but demonstrated conflicting beliefs. Despite never feeling that it was "*right,*" she had been following the traditional approach since she had become a teacher. She shared that she was never a believer of hitting children and refused

to embrace the aggressive approach as her own. While not overtly beating, her approach still contained aspects of physical abuse and fear-based tactics. She did not know of other ways to engage students, that did not include fear or shaming, that would yield promising results. Despite being employed at a school that identified as being "*non-corporal,*" she did not know how to manage a classroom effectively and continued to use covert forms of physical punishment.

Applying such intense pressure on students through harsh disciplines and strict expectations held value and merit for teachers to attain optimal academic and behavioural outcomes. Therefore, it was to be expected that teachers would follow and support these traditional fear-based teaching styles given the dominant culture. However, it was surprising to find teachers who were reluctant to use this traditional style of teaching. Some teachers that were interviewed already possessed a desire to be gracious with their students and extend kindness when possible. Through personal experiences and individual moral compasses, Sarah, Grace and Christine, demonstrated a hesitancy in their desire to accept and implement the traditional approach. As a teacher who remembered the trauma she experienced as a child at school, Christine was never convinced of the value of physical punishment. Christine desired to be relational with her students, and to not have them fear her, but was unable to access approaches that could backup and support her beliefs. These three teachers reported never using corporal punishments in their classrooms as they never felt it fit their values, however, other fear-based practices were still evident. As teachers who wanted to approach student engagement differently, their progress was stagnant. Even with the absence of physical abuse, aspects of the dominant, authoritative relationship style were present in their

school relationships. As a result, fear was still invoked and applied through this student-teacher dynamic.

Irrespective of the intentions, students inevitably learned to be afraid of their teachers through these traditional fear-based methods. Moses shared that "*[students were] scared of the teachers. … because of the punishments.*" Sarah shared how her harassment tactics resulted in students running away from her and not wanting to greet her. Christine gave an example from her earlier, primary school years as a student, when a known headmaster of a school was referred to as "*Earthquake.*" This name corresponded to the danger they felt when the teacher would approach. It was a common occurrence for students to associate both the school experience and the teachers with deep negativity. Students feared to speak in proximity of some teachers, at times unable to request use of the washroom because of such deep fear. Christine witnessed students who would *"remain in a parking lot in their mommy's or daddy's car, fearing, figuring out how do I get out?"*

As discussed, this use of fear was thought to improve learning and student performance, therefore, student concerns were frequently met with dismissal, shame, or violence. Grace shared that when one of her students was not completing her homework, she would continue to harass her, stating she would "*always [be] on her case.*" This ensured that the student would not feel relaxed or comfortable. She explained that "*there was no connection because of that. There was no warmth.*" Grace highlighted her relationships with poor performing students as "*strained*" and lacking any sort of bond or connection. She shared that she *"was not paying as much attention to the connection with*

the children," but rather was *"more focused on defining the boundaries and enforcing the structures."* She continued,

> I honestly didn't pay as much attention [to connecting with my students] because, … I was just going through the motions. You tend to focus on the ones who are [performing well] and the ones who are paying attention. The ones who are not as engaged, I felt like I didn't have the energy.

Mary shared how she was intentionally emotionally unavailable for her students. She explained her philosophy as a teacher to her students, believing, "'*I'm not your mother," so yes, let's keep this as an academic relationship."*" This fear was also believed to improve student behaviours and instill respect for authority. Therefore, school was not a place for kind, meaningful, relationships to develop and thrive in any capacity. The student-teacher rapport was described to be formal, lacking connection. Connection was a term better used to describe the harsh physical punishments of a teacher's stick to a student's knuckles. This was the style of relationship expected between teachers and students.

Some teachers were already convinced of the need for an alternative way to engage with students in the classroom. Consequently, without support to explore other philosophies, these teachers were feeling stuck in their endeavors, as they did not have a solid foundation on which to build. Grace shared that she had, unintentionally and regrettably, become a teacher who was feared by her students through the societal pressures of Ugandan schools. She had inadvertently instilled fear into her students, which came as a surprise since she did not view herself as a "*tough person.*" Grace shared her story of how her time spent in the workforce was a contributor to the "*strict*" fear-

based methods she had integrated into her practice over the years. She was a teacher that started homeschooling her own children, but eventually took a job at a private school. This career change led her to be more focused on *"the academic side of things*" due to the pressure to perform in a certain way as a teacher. She explained that even though she had a small class, "*the teaching does get exhausting and it's consuming.*" As a result, she "*learned to be tough*" in her class as a response to the high demand as a teacher for her students to be well behaved and become top performers. She quickly became exhausted from this stress and admits being "*a bit overwhelmed*," eventually losing sight of her individual values. As an attempt to regain control, she had begun to prioritize student compliance, compromising her original value-system which prioritized connection with children. She had integrated fear-based strategies as an attempt to manage her classroom and had been unaware of how far she had drifted from her original teaching values.

Administrator-student relationships were equally as tense. The administration-student relationship represents an overarching power dynamic, as headmasters are often only involved when students are at risk for suspension. Participants noted this cold relationship style to also be reflected within student-to-student relationships as well. Bullying in school was a common occurrence as reported by participants, with frequent instances of students fighting and picking on each other. Older students flaunted their power over younger students in this same way, as modelled by authority figures in their culture.

Authoritarian style relationships are also found amongst administration and staff. Teachers were often given commands from their headmasters to implement the traditional approach as dictated by senior administration. According to participants, in many

competitive schools, the school administrators formulate teaching strategies which must be taken up by teachers. In other cases, individual teachers are left to find strategies of managing students. Due to the higher pay and increased job security, public school teachers experience high pressure to perform. In addition, teachers often acted alone in their classrooms and were not held accountable for their strategies, as the focus was on the end results or outcomes. Adopting a new or different approach could cause friction between teachers, students, parents, and administrators if there was an inability to understand, or agree with it, or out of fear that the approach might not yield the desired results.

In addition, this fear-based relationship style was also reported to be frequently practiced in homes in Uganda. Mary believes these punishment tactics to be just as prominent, if not more, at home as they are at school. She shared, "*I know for a fact that many of the children are very afraid. They're more afraid of their parents than they are of their teachers."* Teachers commonly interacted with parents who agreed with the traditional approach, as it was frequently utilized in homes as well. Parents were often only involved when negative behaviours of students occurred, often in the cases in which they had to be suspended. Therefore, it was expected that even harsher discipline would be applied at home following these school-based penalties. This demonstrates the relevance of corporal punishment being culturally rooted and practiced at multiple levels within the system.

As the dominant approach intergenerationally applied throughout the country, all teachers in this study reported using fear-based tactics in their teaching practices. It was understood that invoking fear was required to receive respect and attention, and therefore

enhance student performance and improve behaviors. Unaware of other methods to utilize, the traditional approach to teaching was known to generate impressive student outcomes and good behaviours through fear-based practices. Due to what had been modelled and taught in their personal and cultural experiences, even teachers that were uncertain or hesitant to implement it, had unwittingly adopted aspects of the traditional method into their approach to enhance student learning. Such findings reiterate the importance of this research study, highlighting the strengths of the SA by revealing its potential to challenge deeply ingrained traditional teaching practices. Despite the prevalence of fear-based tactics in Ugandan school culture, even teachers who were initially hesitant to depart from traditional methods demonstrate an openness to incorporating aspects of the SA, suggesting its effectiveness in promoting positive change in teaching practices, addressing the educational issue.

Post-Intervention: Enter the Stoplight Approach

A Neuro-Informed Philosophy and Practice

Following the intervention, changes in philosophy and teacher practice emerged. This was clearly linked to the theory of The Stoplight Approach as taught in the SA training implemented for this study. For accessibility, the approach reduces the brain into three basic units, or *brain states*, streamlining the brain's components and its functions into practical applications. This theory suggests that a person's functioning capacity is relative to their activated *brain state,* which is dependent on their level of *felt-safety*. The design of the approach is hypothetically applicable to all individuals regardless of their culture and demographic, ensuring widespread applicability.

The three primary brain states are labelled with a color, each reflecting a unique meaning and function. In summary, *red brain* occurs when someone feels unsafe, triggered by immediate physical or emotional threats. In this state, individuals are working out of their brain stem, and therefore survival instincts are the primary functions. The *yellow brain* represents caution, as one is predominantly functioning out of the limbic system and is highly driven by emotions. Due to the perception of looming hazards or risks being present, the individual does not feel at ease. The yellow brain is also a state when one is feeling unsafe. Lastly, *green brain* represents someone feeling safe and secure, thus functioning from their neocortex. No known threats or dangers are perceived to exist by someone in this state. Theoretically, this is when the highest functioning of the brain can occur, with individuals having complete capabilities for logical thinking and optimal performance (Purvis, 2014; Siegel, 2020). This base knowledge was applied specifically to student and teacher capacities in the classroom in the Stoplight 101 course. The SA offered this information to assist teachers in dismantling the misconceptions in their existing beliefs and laying the foundation for the establishment of new, well-founded convictions.

In this study, teachers were using this knowledge to understand student functioning, and thus learning potential, relative to their brain states. Teacher interviews revealed an extensive application of these three brain states and their colors into their teaching philosophy and practice. As Christine explains, in her approach, she now is using *"the study of the brain, the three brains system, which is the neocortex, the limbic, and the brain stem, and using [the] different colors to denote those brain states."* This implementation represents an adoption of a neuroscientific-inspired approach. Across the

interviews, teachers appeared to attain a level of knowledge of the brain as it aligns with the SA theory summarized above.

With this understanding, the benefits of both teachers and students functioning out of the green brain were recognized. As explained by Rose, when in green brain, a students' brain *"will be working at 100% which means, as you teach them, they will understand most of what you are teaching.*" In other words, students are most likely to perform and function optimally while in green brain due to operating out of their neocortex. This color was acknowledged by all participants as the state where everyone theoretically performs the best, including teachers.

Teachers acknowledged red and yellow brain states as suboptimal for the learning and performance of both students and teachers. Sarah shares, "*I've seen it myself that … if you are in the red brain state …you, yourself, as a teacher, you can't teach right."* For teachers who identify being in this state, fulfilling their working duties is more difficult. Similarly, when a student is in red, they are working from the brain *stem*, which is identified as "*not a good state for the learner to learn"* according to Sarah. Due to personal cognitive inhibitions that come with functioning out of red brain, individuals' performance is understandingly compromised.

Most importantly, green brain functioning can only occur when felt-safety is experienced. As both red and yellow states are triggered when one experiences fear, the importance of students feeling safe in the classroom was now appreciated by all teachers as it creates an ideal working space. Moses shared his desire to create an environment where students "*can feel safe,"* because when students feel safe, *"they can study or attend classes"* with a brain that is *"working at full capacity."* For Sarah, she believes

that "*at the end of the day, you want to create a safe environment"* for students. Likewise, Moses expressed the importance for teachers to "*empower [students] to feel safe at school."* Christine determines that it is her job *"to create an environment that made [students] feel safe.*" In this same vein, Mary expressed that "*…if I'm not feeling safe or if a student is not feeling safe,*" reflecting the presence of fear being experienced in class, "*… it just builds into everything else,"* notably the ineffectiveness of teaching and learning in the classroom. These teachers have shifted from a belief system where pressure, stress, and fear were required to positively impact learning, towards a focus on creating student felt-safety as best practice for optimal brain functioning. Not only do they view safety as an important aspect of learning, but also that students having a sense of fear at school as a hindrance.

Participants' philosophies towards teaching and learning were evidently altered. The success and productivity of the student and the teacher was now assessed according to the degree to which students felt safe within the classroom environment, as this enables optimal learning in class.

Christine provided an example of taking on this perspective in her math class. When asking her about the improvement of performance of her students since using the SA, she shared,

> Yes, there is, especially in maths. I would attach it to math. I had students in my class who tend to fear maths thinking that it's for specific group of people who are performers, who are intelligent, who are mathematicians, something like that. They feel like, "No, I can't do that. I'm always not achieving the same way others are doing it." Through my encouragement, through the talks of us being different

and we can do it. “Practice and practice”. Me being there for them to help one on one. …There is change and a good one-- There is really, really a change from the performance from how they used to see the numbers and how it used to freak them out. Now, like coming to me when someone didn't understand something …They feel like they can share where they were stuck even more than before.

Ultimately, she believes the safety she is now providing to her students through their relationship is enhancing their performance, allowing them to think clearly and achieve success in their learning.

Rose identified sharing this belief in developing safety as well. She stated:

Personally in my subjects, I'm seeing the students are really improving in their performance because once you, as a teacher, you make sure that all your students are in green brain and they're ready to learn, and they're having fun in learning and in whatever they're doing and they learn together. For example, in group works, in project work, they're doing together. They want to try new things. It really helped them to learn and also get the fun from learning. Once you enjoy what you're doing, you enjoy the learning processes.

She continued, “*the performance just improves. You're bringing all the team together. Because they're working as a team you're not leaving one, or two behind, because they're not all in the same state of the brain, so it really helps to improve the grades.*” Rose's experience demonstrates the profound impact of cultivating a positive and inclusive classroom environment where students feel supported and engaged, ultimately leading to enhanced academic performance and collaboration.

Sarah noted that through adopting safety in her classroom enhanced learning has occurred. She expressed "*I'm seeing the outcomes that children are getting their work done and finish.*" When taking an approach in which she is attending to the individual needs of her students, she witnessed students showcasing their improved learning through their prompt completion of assignments. She shared, "*in terms of getting work done for myself and the children, I'm seeing that happening because they're minimal disruptions, certain needs are met and the children are happy and therefore learning is happening."* The primary focus of her classroom goals is on fostering student happiness rather than emphasizing academic performance.

Mary also shares her experience with student performance since using the SA, "*I would say that they're performing better. Because of the knowledge that I now have [about the brain states],* She further explains, *"let's say, for example, we have a test and someone is ill or someone is hungry, someone is upset … I feel because there's a great understanding."* She believes she is better able to support her students in their learning in this way, and the integration of these strategies positively affects student performance. In the traditionally high pressure educational systems of Uganda, mistakes are not acceptable. However, Mary identified ways to incorporate safety into her approach - through encouragement, limiting stressors such as hunger, or taking short breaks - that have been helpful to her student performances as they increase green brain in her students.

Likewise, Grace shares her experience with two students when safety was implemented into her classroom and relationship style. She stated, "*When I am [sic] determined to draw her in and help her, I don't want to use the word feel safe, but I just*

tried to help her see that I mean well and I care about her. I saw a slight shift in her manner and she wasn't as scared. She's actually become more active in class and she's trying harder." She continued, "s*he was really struggling in class but she became happier. She became happier and she was less distracted. She was always distracted. Always fidgety."* Additionally, in her scenario with the other student, she expressed how "s*he became a little more consistent with her work, but also seemed happier and more enthusiastic about the lesson and about [the class].*" Grace's experiences highlight the transformative impact of creating a safe and supportive classroom environment, where students not only thrive academically but also experience increased happiness and engagement in their learning journey.

Rather than using students' fear of the teacher as an indicator of an optimal learning environment, teachers were now using the perceived safety of the student as their benchmark. Teachers re-evaluated their interactions with students to prioritize student safety over the pursuit of perfection in their outcomes..

Creating Student Safety in the Classroom

According to this approach, safety encompasses both the physical and emotional sensations of an individual. One feels physically safe through the absence of bodily harm and emotionally safe through feeling valued and connected. Safe or unsafe brain states are often generated through experiences and exchanges with people. Another person's words and behaviours have the power to instill safety, connection, and validation, or instill a sense of fear, disconnect, and worthlessness. Thus, one's physical and emotional safety can be highly influenced by others.

With this knowledge, teachers were aware of the influence they had on their students relative to classroom safety. Christine acknowledges her ability to build or destroy student safety through the power she holds as a teacher. She now assesses herself, questioning, "'*how will someone feel when I say such a thing, such a word without thinking?*'" She continues, *"every time I do something, every time I enter class, every time I enter school, I need to know, okay, I'm not the only one in this school. I'm not the only one in the class."* This introspective approach reflects a profound understanding of the responsibility teachers bear in fostering a safe and supportive learning environment for all students.

The teachers' responses demonstrate a greater awareness of their ability to impact their students' felt-safety through their actions and words. As they are put in positions of authority in the classroom, and deemed the leaders, teachers hold a dominating and therefore exceptionally influential role. Therefore, teachers began to decide to use this power to instill safety in their students rather than fear and conformity. Initially, this began with addressing the relationship style the teachers previously held with their students.

Redefining the Student-Teacher Relationship. As discussed in the previous section, the student-teacher relationship commonly found prior to the intervention reflected an authoritarian approach, creating emotional and physical distress in students. Teachers acknowledged having an absent or fear-based relationship with students, describing it as "*non-existent*" or "*cold*" to indicate the unfriendly nature of the dynamic, indicative of the traditional approach which imprinted fear in students. Relational aspects incorporating student safety, value, and connection was not a priority for teachers. This

message was reinforced through the application of physical punishments, inadequate dialogue, and a dismissive attitude towards students. With these philosophies and practices evident in their old approach, emotional and physical safety for students could not be achieved.

The absence of a warm relationship between students and teachers created space for fear. It was now understood by teachers that without a classroom relationship style where students feel emotionally and physically validated, *"then fear comes*" (Participant 0410, Interview, Pos. 189). However, this fear is now believed to cultivate red or yellow brain students in the class. Therefore, a requirement for change in this relationship was thus followed.

To optimize learning, a student-teacher relationship that encompassed safety for students was now deemed essential to their practice. For teachers following the intervention, the goal is to create students who *"are not scared of being at school"* (Participant 0107, Interview, Pos. 222). Christine deems it important for students to *"have this safety in me all the time, not to fear me, not to see me coming and … can't even speak because you're coming.*" The focus was no longer on creating a student-teacher dynamic in which students were to fear their teachers, but rather for teachers to become beacons of safety. With changing these values in the classroom, teachers were required to address the methods used to create this relationship style they held with their students. Thus, in acknowledging the impact of teacher's behaviours on students' safety, connection, and value, the counterproductivity of traditional punitive methods was recognized.

Addressing Red Punishments. *Red Punishments* refers to harsh consequences or disciplinary actions that are implemented in response to any form of misbehavior or underachievement which violate established rules or expectations. In the context of the SA, these punishments pose a risk to student felt-safety, disrupting the learning environment. Some examples of Red Punishments would include various forms of corporal punishment, along with temporary removal from the classroom or learning environment (e.g., time-out, isolation), threats of the referral to a higher authority (e.g., principal, counselor), or loss of privileges (e.g., recess, classroom rewards). The goal of these actions focuses solely on the punishment to reduce behaviours, rather than support the social-emotional development of the student to promote positive behavior change.

Physical Abuse. To begin, one means for teachers to create physical safety for students was through removing the act of corporal punishment. Teachers who intentionally incorporated corporal punishment into their practice for the purposes of increasing learning and improving behaviours now claimed a complete elimination of this method. Additionally, canes or other weapons were no longer used in their schools for the purposes of hitting or threatening students when acting out of line or underperforming. All teachers noted an elimination of any physical punishments in their practice and philosophy due to their conflicting values to incorporate safety.

Notably, corporal punishment not only generates pain but also elicits an emotionally unsafe experience for students. As an approach aimed to threaten students, intimidating them to conform to the rules, teachers recognized this traditional practice as an unhelpful tool that damages student safety both emotionally and physically, thus creating a twofold hindrance to student learning. Mary and Moses reported previously

supporting this technique in their practice. However, with this new understanding of the brain and relationships, they no longer valued the use of any physical punishments. This represented a monumental change in the philosophies and practices of teachers.

Verbal Abuse. Much like with physical punishment, teachers also recognized the effect they can have on students through verbal methods. According to Grace, when it comes to communication, *"it's the manner in which it's done"* that can cause students to feel safe or unsafe. Word choice and tone can be contributors to a student's emotional and physical safety. Harsh verbal strategies are threatening to a student's emotional safety, designed to curate fear in a student through invoking high-pressure, shame and embarrassment. Therefore, teachers reassessed their communication methods with students.

As described in detail in the previous section, teachers identified previous verbal fear-based punishment strategies of shaming, blaming, name calling, yelling and other forms of aggression as provoking unsafe experiences for students. Rose explained how, "*instead of trying to calm [students] down, and assuring them that everything will be alright, and try to be gentle with them"* she was *"rough with them.*" In using such harshness with students, she now believes she was "*doubling [the problem], … making the situation worse*" as these are causing the student to feel unsafe and enter red brain. This broken safety thus results in red or yellow brain students, which are notably less than ideal states for learning and thus an unproductive tactic.

Remaining critical towards students was highlighted as another ineffective method in teaching in need for change. Such communication styles were designed to increase a sense of fear and distress in their students. Grace expressed how, "*I realized*

that in my being critical, I immediately take them from if they are in a green state, they move to a yellow state. …you actually change [the students] whenever you pick on them." Belittling students to increase pressure and shame was now viewed as having adverse effects on their performance, pushing them into an inefficient learning state. She also acknowledged how in her previous practice, when engaging with one of her underperforming students, "*being on [a students] case*" for not getting her homework completed was no longer deemed helpful in modifying this behaviour. Such antagonistic interactions towards students were understood to be disrupting green brain in students, bringing them into an obstructive state for learning.

Consequently, verbal fear-based strategies used for punishment became less valued and less prominent with teachers. Grace noted that, *"I feel that when my approach was very, very condescending or very harsh, I didn't get as quick as a response.*" Despite being used in previous practices, cruelty towards students was recognized as being counterproductive through an increase of student fear and dysregulation, pushing students to enter and remain in a red state. As these punishments caused students to feel unsafe, unvalued, and disconnected, teachers removed these methods for student correction.

Creating Green Experiences. Teacher-student communication styles were seemingly considered a critical method for impacting student safety. Therefore, teachers' approaches to communicating with students was essential to address. Christine acknowledged that in her practice now, *"we think before we speak."* Sarah was *"being cautious about picking on children"* while also "*trying not to publicly shame children"* to allow space for safety to be developed in her classroom. However, teacher's practices were reassessed to not only remove the verbal fear-based methods that were previously

used, but to also incorporate a safe means of communication. In addition to the removal of aggression, communication styles that encouraged safety, value, and connection with students were now demonstrated in their practice. This led to some fundamental changes in teachers' communication styles.

Positive Talk. Through removing harsh language and tone, space to develop safety in the student-teacher relationship was possible. Intentional tactics mindful of student impact were now incorporated, as teachers were replacing previous methods of harshness with kindness. Rather than speech that would instigate fear and shame, teachers worked towards utilizing communication styles that would reflect warmth and safety. This is demonstrated through the teachers' modification of their language choice and style. According to Sarah, student safety could be developed through practicing positive talk when engaging with students. The word choice and tone in which teachers spoke to students became intentionally positive and uplifting. Grace described her new communication tactics "*to be affirming and not too critical.*" Grace suggested that "*it's okay to be a firm teacher but you can still be gentle."* She elaborated, suggesting that "*instead of attacking them, instead of telling them off, it's the manner in which you correct them. Point out the error, but then speak in a gentle tone and reaffirm them."* These teachers demonstrated the value of being assertive instead of aggressive to ensure safety while also valuing productivity with their students. Rather than speaking to invoke fear, teachers desired to build safety with their words.

Verbal Explanations in Discipline. Additionally, teachers demonstrated increased dialogue with students when an undesired behaviour was present. At times of correction, teachers were reportedly embracing a style of communicating that did not

include using threats or yelling. Old tactics were absent of explanations and conversations, however now, Mary explains that "*even before discipline is netted out, there is a conversation."* She expressed how she will work through the discipline process with the students through a discussion, rather than "*just saying, 'You won't be going for play. I don't need to explain to you anything [sic]. You know what you did, and because you know what you did, just sit quietly.'"* This previous method emphasises shame, however, in using dialogue as a part of the new approach, she can allow space for safety to be created in the interaction. Her methods are designed to impart respect and care for the students. Explaining to students' the consequences for behaviours and involving them in the process reflects an approach where students are valued and prioritized, and therefore can experience emotional safety. Through discussions, teachers can inform their students *"that the discipline, it's actually coming from a place of love and it's meant to make them better"* (Participant 0405, Interview, Pos. 192). With teachers engaging in conversations with students, even during times of discipline, a sense of safety could be present.

Such dialogue was reportedly practiced by many teachers when unwanted behaviour was present with students. Grace shared that "*with the Stoplight Approach, one could just talk to the child and explain why … and ask why-- just have the conversation and hear him out."* Likewise, Mary explains that such dialogue happens during class time, as well as in one-to-one conversations. Teachers undergo open conversations together with students about *"the consequences of [their behaviours],"* to explain to the students the process of the discipline.

Granting students an explanation and a conversation provides them with an understanding of what was occurring. This enabled the student to be an active part of the process, allowing them an opportunity to work together with the teacher to negotiate a solution to the problem. Teachers facilitated student autonomy and worth, even through students choosing their own consequences to their actions. With communication integrated into student-teacher engagements, physical and emotional safety could be entrenched for students as they can still feel a sense of value and respect within the interaction.

Changing Uniform Tactics to Individualized Strategies

With the non-acceptance, and thus the removal of invoking fear─specifically with verbal and physical abuse─it was apparent that teachers' approaches were deviating from an authoritarian mindset in the classroom. With a shift in this direction, teachers wanted students to experience the classroom as a safe place. Mary says what she appreciates the most about the new approach is how she has been able to develop a "*new space"* where it is a*"safe space to share different experiences.*" Students are accepted by teachers for all their distinctions, creating a mutually respectful inclusive safe space where individuality, including personality and learning differences, are embraced. Teachers labelled "*freedom*" for their students to speak, share, and express their individuality as an important change in their practice and philosophy.

Freedom for students to speak became a quality teachers strived to cultivate in their classroom. They believe their students' ability to openly communicate is important, as it reflects felt-safety. Sarah determines that, "*in terms of teacher-student relationship, I think that [developing] trust [with students] and therefore allowing them to open up*

whenever they need to is one thing I can say [the new approach] has helped me with." When teachers accept their students and their individualities, students can trust their teacher and feel safe. Once students feel safe, they can better engage with teachers both personally and academically.

Having previously applied a uniform approach to all students and situations, understanding individual differences was a momentous change for these teachers. Students came to be viewed as holistic, multi-dimensional beings, where a 'one-size fits all' policy is no longer applicable. This led to significant modifications in how teachers managed student behaviours and conflicts in the class.

Adopting a Growth Mindset. The new safe approach revealed a growth mindset now being integrated into teacher philosophies, where the individual abilities of students were acknowledged. With the adoption of this philosophy, students could be met at their individual levels. Teachers modified their approach, learning "*how to treat learners",* according to Chrsitine, by considering and embracing students' individual traits, skills, and abilities, rather than ostracizing and shaming these differences. Instead of representing disobedience, academic shortcomings were accepted and thus were met with warmth and tolerance, and embraced by teachers as opportunities to learn and grow.

Underperforming students were now viewed as having the ability and potential to perform, just requiring teacher encouragement and increased student effort to achieve success. Thus, the way teachers now chose to speak with their students demonstrated the belief that a student's ability can change as a result of effort, perseverance, and practice. Grace shared how she now chooses to say statements such as*, "no, I know you can do better,"* rather than, *"what's wrong with you?"* when correcting students. Teachers were

substituting condemning or critical methods designed to instill fear in students, with words that were encouraging emotional safety through acknowledging their students' abilities.

In acknowledging a growth mindset approach, Christine outlined a change in her approach with students in the subject of math, where many would *"fear maths, thinking that it's for specific group [sic] of people who are performers, who are intelligent, who are mathematicians, something like that."* Previously, for students who did not believe that of themselves, they would "*see the numbers"* and it would *"freak them out.*" Having adopted a growth mindset, Christine was able to utilize positive talk and encouragement to promote academic progress in her classroom, stating, "*we can do it. Practice and practice."* Christine now believed in the students' ability to perform through training, while also encouraging emotional safety by promoting confidence. Adopting a growth mindset, paired with verbal reassurance to ensure safety, were now deemed an optimal practice for enhancing learning and performance..

Embracing Student Differences. In this new safe space, students were not only accepted for their learning differences, but for all the diversities they embody as individuals and thus exhibit in the classroom. Christine demonstrated how she can create a safe classroom environment through reinforcing a philosophy of acceptance with her students. In biology class when anatomy and physical features were discussed, she would use this time to teach her students that they are all "*unique in our own ways"* as a positive lesson for students to increase felt-safety. Through morning discussions and throughout her lesson plan, Christine taught her students to realize, "*yes, we're all different and we possess different characters [and] body features. ...I may be light-skinned, you're dark-*

skinned and that's okay and we all live in one community, that's the class." Through consistently accepting the unique characteristics of students, and building them into her classroom instruction, she was allowing safety to grow and develop. Hence, fostering classroom safety necessitated the adoption of a comprehensive understanding of students' needs and experiences.

Such an acceptance and tolerance of others became a new classroom norm. Christine noted its importance, as she suggested that when in school, *"you're working in an environment of different people in your class or your community."* Without the acceptance of others as different and unique, *"you [could] really end up hurting others,"* and thus creating insecurities and disconnections leading to red brain states. Specifically, Christine identified how "*body-shaming"* could occur, thus leaving one to feel victimized and unsafe. Therefore, her new approach was modified to create inclusivity in the day-to-day. She expressed that "*Stoplight really, really, really helps you to appreciate everyone in their different unique characters and their unique ways.*" An ability to appreciate individuals as unique, and to appreciate what they bring to the classroom holistically, was evidently incorporated as a modification to the philosophy and practice of these teachers. This holistic approach fostered a sense of belonging and safety among students, promoting a positive learning environment where every individual was valued and respected.

Encouraging Student Engagement in Learning. Additionally, with students viewed as holistic individuals, student engagement in learning was viewed as a helpful tool to increase performance. Christine shared that her favorite aspect of the approach was "*that freedom of free communication … We're free to express our souls freely*

without fear." Engaged students are students who are free to speak, due to a lack of threats or perceived-danger, and thus represent safe, green students. The goal for teachers became creating the type of student who feels safe and who can optimally perform in the classroom, therefore, teachers were now notably encouraging and embracing communication from students.

Teachers were clearly valuing the input of their students during class time, which demonstrates another change relative to their old practices. When her student was struggling, Rose shared, *"I told her, she's free to talk to me …She can come and talk to me.*" She reported valuing and cultivating a class atmosphere that included students feeling "*free*" and "*safe*" to share their questions and concerns.

Previously, student engagement was not valued, and therefore vocalizations in class were often met with harsh punishments. According to Christine, it was common for students to be dreading what would happen after class if they were to speak at all during the lesson. Moses shared that "*some students were always fearing, even when they want to ask an important question. They'll just reserve it because of the fear they had toward the teacher."* In the previous traditional teaching approach, the ability for students to voice their individual thoughts and ask the teacher questions was restricted out of fear of the teachers and punishments.

As Moses shared, his classroom practices have changed in a significant way where *"the fear is limited"* with his students. The cold student-teacher relationship of the traditional practice was replaced, where *"student[s] can freely ask questions without fear"* of harsh punishments and retribution. Students are no longer shamed or penalized if

they are vocal in class, thus reducing the culture of fear in the classroom. According to Moses, students were now free to engage in learning.

With previous fear-based approaches, order and compliance were valued as quiet students were perceived as respectful, listening, and learning. However, such silence in class was now understood to reflect the potential for inadequate learning. Engagement in class was thus representing the presence of learning, rather than the absence of obedience. This demonstrated a change in beliefs in which teachers not only permitted, but strongly valued, creating a space for students' voices in the classroom. Verbal students represent students who are learning, a shift which represents a major change in classroom expectations for these teachers.

Unmistakably, vocalizations from students in class were now an identifier of success for teachers, as they embrace and appreciate comments and inquiries from students during lessons.

Christine explained, "*we no longer look at it like school only, like where you have to come and put knowledge."* The phrase "put knowledge" implies a one-way transmission of information from teacher to student, emphasizing rote learning and memorization. However, Christine's perspective suggests a move towards a more holistic approach to education that encompasses social, emotional, and personal growth alongside academic achievement. Education is no longer defined by students arriving at school solely to listen as the teacher teaches. Rather, she now employs an approach where exchanges occur throughout the learning process: "*we share knowledge now, we share experiences, we share skills."* Learning is a collective and on-going process where contributions are welcomed by all.

One teacher expressed the importance of a mutual exchange in the classroom now, rather than a space where only the teacher's voice was expected to be heard. An environment was cultivated where a lack of understanding yielded collaborative exchanges and learning opportunities, as Christine suggested that, "*where I don't understand, I ask, and where you don't understand, you ask. It's not only one fountain of knowledge from teachers"* (Participant 0416, Interview, Pos. 205). With this perspective, teachers no longer had sole power and authority in the classroom, students were also to be respected and valued, and thus feel safe. Teachers modelled this style of engagement and relationship-building for their students in their new practice.

Engagement in learning not only included asking questions, but was also recognized as students experiencing pleasure in the lesson and in learning. Rose shared that what is most important to her is for her students to be "*having fun in learning and in whatever they're doing."* She explained that "*Once you enjoy what you're doing, you enjoy the learning processes.*" In other words, the environment most conducive to learning is one in which students are happy and involved, all states which represent green brain functioning. Therefore, teachers came to value students who participated in class in this way. This was present in how teachers were allowing students to interact with each other, as well as the teacher, so that *"they learn together … in group works, in project work, they're doing [it] together."* With this new philosophy, teachers acknowledged that students who are active in the educational process, with peers and teachers, will have advantages in learning, signifying a change in their philosophy.

Understanding Student Behaviours. With acknowledging students as unique and holistic individuals, teachers were then able to adapt the conclusions they held about

student behaviours. Students became treated as a whole person, taking into account the mental and social factors of their context. Previously, students who were "*acting out,*" or underperforming in class, would be labelled as "*problem children.*" For Rose, "*there was an assumption"* that a student misbehaviour or academic shortcoming was just simply *"because of the indiscipline"* (Participant 0104, Interview, Pos. 28). This is where a uniform method of harsh verbal or physical punishments would have been applied. However, an understanding of the interconnectedness of student behaviours to the other facets of their lives had now appeared.

Teachers now saw that a student who is safe, valued, and connected presents as being happy, content, focused and cooperative, and are more likely to be regulated. They can feel secure, physically and emotionally, with no immediate, critical need. Furthermore, a dysregulated individual, one exhibiting behaviours of a red or yellow brain state, is believed to have unmet needs. One would assume they are feeling unsafe, unvalued, or disconnected from others, appearing angry, unfocused, irritable, and defiant. Dysregulated individuals can become regulated when the emotional or physical need is identified and addressed specifically for that person, relative to their individual adversity.

Behaviours, post-intervention, are less likely to be dismissed or condemned; rather they are signals for teachers in recognizing the brain state of their students. Christine expressed how the SA education aided in her awareness of the brain, "*to understand what parts of the brain [is activated]"* when behaviours occur, and to use this information to her advantage in the classroom. Christine stated that now, in practice when students are misbehaving, "*I don't usually take them as disrespect, I feel like I just didn't*

understand a child." Thus, teachers now understand student behaviours as a reflection of their brain state.

Factors and Influences on Brain States According to teachers, student behaviours are believed to stem from a variety of reasons. Moses explained that "*most of [one's] behavior happens simply because of some other circumstances, which [you] may not be able to see.*" Students can enter an unproductive brain state for learning and functioning for reasons that may not appear obvious. Influences and factors unique to the student's demographics, home life, time of day, personality, and physiology were identified by teachers as potential explanations for brain states and behaviours exhibited by students.

During interviews, natural mood changes over time were proposed as a situational factor contributing to students' brain states, and their behaviours. Sarah shared, "y*ou start noticing that if someone is being naughty it's because they're bored or they're tired."* Normal changes in a student's brain chemistry throughout the day could have noteworthy effects on behaviours. Conclusively, factors such as hunger, boredom, and fatigue, were all considered causes for dysregulation and inattentiveness.

For students in their junior class, consisting of those exiting childhood and entering adolescence, Grace, Mary and Christine identified physical and psychological developments as the reason why the student "*doesn't want to do what you're asking him to do"* on some days. With students that are "*generally good*," Rose recognized age and hormones as contributing to such defiant behaviours. Christine also recognized that when her students are "*that adolescent age*" of *"transitioning,"* or *"the puberty stage,*" the impacts this may have in the day-to-day are unavoidable.

Furthermore, experiences of students, both inside and outside the classroom, were also considered as having an influence on student behaviours. Serious personal or home-based issues were highlighted by teachers to have potential impacts on behaviors and performance. A student's family dynamic and background became relevant information to understanding a student and their brain state. Moses shared, "*some of [our students] are coming from problematic families. Some are orphans. They have such challenges."* He now recognizes that the stability of a student's home life can have consequences on the student's ability to function in the green brain.

Additionally, an acknowledgement that trauma can be present from other stressful incidents was present. Christine stated, "*I understand what really one can go through if you're really traumatized and what can really cause you to be traumatized.*" The acknowledgement of traumatized students and the effects this can have within the classroom was evident. Trauma along with other stressful events are now considered and regarded as factors leading to student behaviours in class.

Ironically, school itself was identified as another potential trigger for student trauma or distress. Mary shared, "*because of whatever might have happened in the past, some of the children actually do not consider the class a safe space.*" As the traditional method customarily contains student maltreatment, it became apparent to teachers how this may have caused long-term damage to a student's ability to function in class. Student experiences in the traditional system were recognized to be potentially disturbing for some students, having lasting effects on the brain and subsequent behaviour. Students may harbour deep rooted fears that are associated directly with the teachers or the classroom, and thus feel inherently uneasy at school. Some students could experience

lingering effects on their ability to optimally learn and maintain a regulated and green brain in class.

Student behaviours took on a markedly different meaning for teachers. Behaviours are now the symptom of an unmet need, triggered by a disruption in safety, stemming from situational factors to at-home hardships. As identified by Mary, it is believed that *"emotions feed into our behavior, which then feeds into how we treat others".* When a brain state is triggered, this elicits emotional responses that lead to reactive behaviours. Therefore, teachers moved away from focusing only on the behaviour of students. Instead, student distress is identified as a potential cause for disruptive behaviours, making student regulation the centre of teacher attention.

Getting Personal. With the acknowledgment that student behaviours reflect student needs stemming from underlying and fluctuating factors that could be present in students' lives,teachers began extending compassion and understanding to their students. Christine believed it vital to try *"as much as possible, to understand your class, understand the school, understand the people you learn with so that you're able to know their emotions."* Sarah also expressed, *"[now, my focus] is just trying to understand the different children and where they are [emotionally] ...I just tried to understand the challenges where they were."* Likewise, Grace believed that an effective skill to utilize with her students is to "*be open to understanding where they are.*" In getting to know their students, teachers could better understand what they needed.

Such an understanding was deemed crucial in an approach where the emotional and physical safety of students was the priority. Sarah explained, "*when you learn that child or when you [understand] someone"* such as "*when they're mad, they're angry, they*

don't feel like talking to people," she is able to develop helpful conclusions on the student. In turn, she felt better equipped to address the behaviors and needs, in a way that could appropriately and accurately provide safety, such as "*giv[ing] them minutes.*" This personalized approach not only fosters a supportive learning environment but also ensures that each student's emotional well-being is prioritized, ultimately contributing to a more conducive atmosphere for learning and growth.

In getting to know her students, Mary learned that her students used to be "*hit on their knuckles*" by their teacher when misbehaving or underperforming. When discussing these incidents today with her students, despite having occurred three years ago, she realized that to her students, this experience still felt very fresh. She continued, "*it seemed like it had happened only maybe yesterday. I was surprised. It helped me realize that …trauma sinks deep."* Similarly, Rose stated, "*it's very easy to think that we've gotten over something because the sums of time have washed it away,"* however this is not always true. The damage of corporal punishment and other fear-based approaches previously used in schools and endured by students were identified to still have detrimental effects on students and their functioning. Teachers recognized the importance of acknowledging trauma and being aware of its presence in their classroom.

In another example, Mary learned how one of her students was frequently feeling uneasy at school due to her home life. She explained:

> my student mentioned, in passing, in a conversation that she had been absconding from school because she was concerned about her mother…She was concerned about her mother and particularly violent outbursts that her father had been having. She said when she came to school that she was constantly worried that she

might not find her mother alive. For me, that was very jarring and just thinking if a child is in such a state, there is nothing they can learn.

Mary recognized that for this student, the unsafe and insecure environment at home could likely have lingering effects on the student in the classroom, impacting their brain state and their ability to learn. This example underscores the critical importance of addressing students' emotional and physical safety, both within and beyond the school environment, to ensure optimal learning outcomes and well-being.

Knowing students on a personal level was thus imperative to recognize such intense and otherwise imperceptible factors. For these reasons, teachers came to believe it is important to better understand their students to thereby cultivate a conducive environment for green brain in their class. An understanding of student behaviours that considers personal and physiological factors was a helpful tool for teachers, as it could inform them on how to proceed with their lesson relative to the students' needs and brain state.

Attentiveness to Student Needs. When unsafe brain states were identified in class, Moses explained that *"we can be able to help that person calm down…we can assist that person in that form."* However, Moses emphasized, it is only after you understand your students that you can know "*how to help them*" in an effective way. To achieve this, teachers paid attention to their students' brain states in class, a practice that was not previously present. Moses described it as "*considering someone's mind state*" while he is teaching. It became important for teachers to be able to *"identify the state of the brain the children are in"* in the moment, so that the learning capacities of students could be understood and simultaneously students can feel validated. Rose

explained that through attending to these brain states, "*now I know that a student who is in the red brain and the yellow brain, they are not ready to learn… and I'll be able to tell if they're really ready to learn before I start teaching them in class.*" As a practice, actively being aware of the student and their needs throughout the lesson allowed teachers to stay in tune with their learning capabilities.

Notably, when students are in green brain, teachers recognise they can effectively proceed with teaching. However, when teachers identify students who are in an unsafe brain state, it is now the teacher's role to "*assist them, [to] move from this state to a green state where their brain is fully functioning, and that's when they can fully understand whatever is being discussed or taught in a class"*, as explained by Moses. As students presenting as red and yellow assumingly need assistance, Moses expressed the importance of understanding students in these moments to determine *"how do we bring them back … to green brain where they can feel safe, they can feel secure."* Such achievement was necessary for his students to be "*ready to learn before we embark on teaching them in class."* Evidently, an ongoing consideration of student brain states was important in the teachers' practice so they could best ensure emotional and physical safety and thus optimal learning capacities.

Through intentional exchanges with students, teachers could provide safety and empower them to enter the green brain state. They demonstrated being proactive with their attentiveness to students by integrating daily check-ins with students in the classroom. Sarah encouraged her students to be "*aware of their state"* so they could vocalize this color to the teacher when relevant, who could then help them return to green. Through the use of specific language and the safety to speak up, students could aid

teachers in identifying their own brain states and communicate this to others. For some teachers, daily "*circle time*" was used as a proactive approach for this purpose. Circle time was more than a discussion of colors and states, it was an opportunity to converse with and listen to students, to gain an enhanced understanding of the children and what their triggers may be. In this way, teachers could understand the brain states of their students and why they were occurring, even before instruction began. Mary explained this tactic in her practice,

> We will sit in a circle on a mat and we'll just share about how we're doing, how we're feeling. That usually gives me insight at the beginning of the day and I know, 'Oh, maybe so and so didn't have breakfast, I can send them downstairs to pick a snack,' or, 'So and so had a fight with their parents and they're not feeling very happy or confident,' or, 'So and so was bullied.' Someone made a nasty remark to them and they're maybe not in the best frame of mind that they are. Things like that.

Students were encouraged to discuss their states relative to their own well-being and feelings, and anything else they wanted to share. Providing students an opportunity to share the reasons behind their state was helpful in identifying and understanding students' needs.

Similarly, Sarah used circle time as well, stating, "*[we have] circle time in the morning before we get into the lessons and everything."* She also used this as an opportunity to gauge each student's brain state and better understand them. Sarah explained her use of this process as she shared that communication was enhanced, through "*using the language in class, the colors in class, and having, of course, the*

children use them as well, whenever they feel they are in a certain brain state." This was beneficial, so that if a student expressed that they were feeling unsafe or in "*red*" or "*yellow,*" they were provided a productive space to process and address this appropriately. Through attentiveness r, teachers could identify student's needs and they could be supported in re-establishing a green brain.

In this same way, Christine also used morning time to bond with students and gain knowledge about how they're feeling. She explained,

> When we sit on the mat, we share exactly like how was your night? Tell me your journey to school, how did it go? Did you have breakfast? Are you happy? Are you sad? What made you happy? What is making you sad? Can we share? Is it okay to share?

By engaging in proactive conversations with students, Christine fostered emotional safety through connection, gaining valuable insight into their brain states and needs to inform future classroom management strategies. In addition to specific times set to converse with students about their brain states, teachers demonstrated an approach of being actively aware of their students throughout the lesson. Through classroom expectations created together with the students, during the initial introduction of the SA to the classroom, teachers established a means of communication for their students from the introduction for the SA. Some teachers utilized preventative methods, such as a note box available at all times for students to write down their feelings and concerns if they needed to talk. Other teachers encouraged open communication through language and regular inquiries, such as that of circle time.

Valuing Students Over Lessons. In acknowledging the likelihood of underlying issues for students, teachers understood the importance of incorporating empathy, compassion and understanding into their relationship with students. Theoretically, with the establishment of a safe relationship, and a space where students can feel safe, Moses believes they would be less "*bothered with the home issues and the rest"* (Participant 0107, Interview, Pos. 58). Students could then feel safe with their teachers and at school, and therefore be in green brain. In her current practice, Sarah described herself as "*being sensitive"* with students because she is "*aware of the traumas and how they can affect the children."* Moses believed that for traumatized or stressed kids, "*to handle them properly, you need to bear in mind that these minds, they have been maybe tampered with.*" Once teachers could recognize the fragility of their students, they believed they could more effectively work with them in class.

It is only when teachers were able to understand their students' personal and physiological needs that they could then accurately identify an unsafe child, the unmet need, and thus aid in regulation. Such regulation could only occur when teachers address the issue specific to the student and need at hand. As Rose explained, *"if the need is met …then you find the child is calm."* By having the need met, one experiences felt-safety again, reflecting green brain functioning and the ability to learn and behave constructively. Notably, the assistance of the teacher in student regulation is important, as children are still undergoing physiological development, again reiterating the significance of the influence of the teacher in the classroom. Therefore, teachers holding relevant information about their students and their brain states provides teachers with an

advantage in maintaining safety in the classroom, as they can address the issue appropriately, thus maintaining safety for, connection with, and value of students.

When an unsafe brain state was identified, teachers would explore strategies on how to regulate students or move students into a green state, using their warm relationship style to instill emotional safety in their classroom and with their students. Grace believed it was up to the teachers to be "*helping and coaching the child through"* the issue at hand to develop a resolution for students to reach green brain. It was essential for teachers to address their students on a case-by-case basis, as needs varied across and between students. A uniform approach to all students was therefore no longer applicable, as Mary shared, "*different people deal with different emotions in a different way."* Thus, the acceptance of student differences was again evident in the alteration of teachers' approaches. The value of students individually was prioritized, and student needs were acknowledged, embraced, and addressed above all else.

For students who appeared to be in red or yellow, teachers addressed their needs using class time to create physical and emotional safety, through space, time, and connection. Christine shared that with one student, "*when they're mad, they're angry, they don't feel like talking to people… We can let her be for some minutes*" (Participant 0416, Interview, Pos. 117). Initially, space and time can be helpful in regulating. In Christine's practice, when some students were demonstrating red brain behaviours, they could choose to *"sit alone, breathe in, meditate"* as she provided a quiet space that was accessible for them to use autonomously. She continued, they can "*breathe in for a few minutes, then come back in class"* when they feel safe and ready. In such scenarios, Moses shared that, "*there are issues which you have to give some time maybe to allow*

someone to settle down and connect and then do the rest." He too recognized that students often need time to regroup on their own, followed by the guidance of the teacher.

Teachers allowed the space for conversations with students during times of distress, when exhibiting misbehaviours, or experiencing academic failures. Grace explained that rather than punishing and condemning students, "*if I find a certain behavior unbecoming, I really should* [sic] *talk to the child about."* To build a connection and to help the student feel safe, providing the student intentional time to express themselves was deemed critical. Mary agreed, explaining that "*instead of just calling [the students] aside and reprimanding them, sending them to the principal's office, sometimes what's required is just a conversation."* At times of discontent, basic conversations where they were allowing the student the time and space to speak was a helpful tool to utilize.

Evidently, an approach that employs understanding and listening, rather than immediate compliance, was applied. Mary shared that through adopting this new strategy, for her, "*it was a bit of a shock to the system to think that maybe there are times when all a learner needed was to just have a talk and just find out what's going on."* She added, *"usually, when you get to hear the back story, you realize that the behavior is just the tip of the iceberg of whatever emotions are boiling under the surface."* Listening during times of conflict was established as an approach and a philosophy of student safety was ultimately prioritized.

In addition, teachers also displayed the importance of taking time to step away from the class with the student and incorporating one-on-one time to collaboratively identify and understand the student's state. Mary believed that "*you have to make time to*

sit down and talk to the children." Intentional time with students was used as an intervention by these teachers to model regulation. Rose shared, "*there was a day I was teaching, and there was one student who was crying …I went with her outside [the classroom]."* She continued, "*…and then she talked to me and told me what was making her sad. I talked to her, and I was able to find out why … and [help] her… and she was able to come back to green brain, and the class continued."* Prior to the training, attending to one students' needs was frowned upon, as it required additional time away from her lesson and the other students. However, in their new practices, teachers provided examples where they spent intentional time to connect and understand students. The benefit of spending this time with students, away from the lesson, was now perceived to be productive as it allowed students to feel safe, connected and valued, thus optimizing learning.

Seemingly, teachers practiced substituting the dismissal of students' experiences and emotions with an attentiveness and willingness to understand, create connections, and reinforce safety with students. Ultimately, the value of the whole student was revealed in the consideration of the long-term development of students. Grace stated, "*I know that people who are very emotionally intelligent go really, really far, so to prioritiz[ing] that"* was something that she needed to focus on in the classroom. She continued, *"right now, the emphasis is on the academics. I do care about the whole child but I probably need to help them work through their emotions and deal with emotions."* Teachers were now considering the benefits of managing children in the classroom in a way that considered student emotions and regulation. Rather than focusing on academics, immediate

compliance and obedience in the classroom, a prioritization of the holistic student, over their lessons and schedules, was evident.

Flexibility of Time and Schedule. Fundamentally, teachers were now utilizing methods that were designed to develop safety, instill value, and achieve connections with students above all else. In acknowledging the value of students, acquiring the ability to be flexible with the classroom structure was essential. Rather than sticking to the rigidity of a predetermined lesson plan, teachers were using class time to meet student needs. Such flexibility in teachers' lessons demonstrated a neuroscientific-based approach in which optimal performance could only occur when students are in green and thus regulated. Behaviours exhibited in class are now viewed as signals of a brain state. Boredom, hunger, fatigue and trauma, among others, all represent red and yellow states in which there was an underlying unmet need.

As teachers were more aware of these underlying problems in their class dynamics, they were able to address these students' needs accurately and optimize their learning ability. Mary explained,

> I feel because there's a great understanding [of the brain states and optimal learning], there is more flexibility. Because different needs are being catered to … I feel that just making just small provisions helps me to meet everyone at their point of need.

She explained how that varies with situations and students, stating,

> That may be just giving someone five extra minutes or telling them that it's okay to take a bathroom break to calm down and wash their face or to go and get a snack or whatever it is, that it's feeding into their overall performance.

This demonstrates a significant change in how she would previously demonstrate rigidity in structure and timelines, with limited flexibility in her approach. Uniformity in her approach with students was exchanged for diversity, prioritizing the student over the lesson.

Likewise, Rose integrated flexibility into her practice as an aid for mitigating class disruptions to learning. This occurred through the simultaneous integration of understanding her students and their brain states. She explained,

> I'm able to read the signs [of my student's mental state] and I'm able to make certain decisions in my class. If I predict that children are becoming [tired] or they are losing attention, playing around with each other, then I think that we need a brain break or we need to go use the washrooms for like five minutes.

Distracted students were now understood to be unengaged students that needed stimulation to become reengaged. Therefore, when instructing, she shares, "*I'm just thinking that I need to have breaks … because I know that they're tired."* Through providing movement in breaks, the students "*will get a chance to move around. The ones that have lost concentration will get a time to … rejuvenate their attention."* A focus on changes in brain state as a natural occurrence, rather than the bad behaviours of students requiring immediate punishment, allowed Rose to grasp an opportunity to rejuvenate green brain in her students during lessons.

The shift in priority towards valuing the student and their needs was evident in these examples provided by teachers. In comparison to her previous philosophy and practice, Sarah explained that she was now "*more concerned about the means to the end than the end itself."* Ensuring teachers are using methods that create physical and

emotional safety for students for holistic and long-term development has become more important than seeing immediate results of behaviour compliance or academic performance.

Ultimately, meeting student needs was viewed as an asset; as a way to productively utilize time and energy, rather than taking this away. Sarah explained her philosophy behind this strategy, stating "*because as a teacher, there are certain goals you have, whether for the day or the week or the time, you just want to get certain things done."* However, teachers now believed that by meeting the needs of the student, ensuring they feel valued and safe, allows the greatest productivity in the short term. Sarah continued,

> By taking into account these [brain] states, I am actually able to pause and say, 'Maybe we won't learn long division today. We shall just practice our times tables because the snack has come late and it's not feasible to actually think that they're going to grasp any new learning right now, so let's take a break', or 'That class is too emotionally charged. Let's go on a walk around the school,' or, 'We're in a very good state, let us do a test.'

Understanding the student brain states as a reflection of learning capabilities allowed teachers to be flexible in their instructions to best optimize learning.

With this new understanding of the brain and its needs for optimal functioning, Sarah consistently utilized the aspect of schedule flexibility in her day-to-day teaching. She shared,

> I feel in a sense that the days are more organic…That I'm more willing to take the day as it comes…To make adjustments…To make changes depending on generally what the state of that class is or even my own state.

She now worked to tailor the day, both the academic and non-academic portions, to address the ever changing brain states of her students. She explained,

> …even if I have a lot to finish [or] to teach and everything, I need to create activities that allow movement, that allow talking because maybe they will be [encouraged] to talk at some point so that they stay in a happy [green] state of mind.

Practices that encourage student engagement were considered more essential to learning than completing the agenda for that day.

Before class begins, Sarah worked to create an optimal learning environment as it relates to student engagement and abilities. She explained further,

> In my planning as well, I'm thinking about the children who are going to easily get irritated … and I'm planning of breaks [sic], I'm thinking of different activities that could help them stay in green so that learning can keep happening.

As a proactive approach, Sarah would plan to integrate engagement to support diverse learning styles and needs in her class.

In addition, she would engage in ongoing assessments of her students' brain states. She explained that she would read the students and to determine what color brain her students were functioning in. If one appeared unsettled, demonstrating red or yellow brain behaviours, Sarah would *"give them options"* on how to move forward in a way that suggests change. She offered, *"maybe you want to sit here, or you want to go and*

maybe take a break then come back." She no longer felt pressured to stick to the pre-planned agenda, but instead offered alternatives to aid in regulating her students. Modifying her lessons to meet the basic needs of her students' brain states became a core tenet of her practice.

Sarah explained that her neuroscientific perspective of functioning abilities and behaviours was helpful in her lesson planning, helping her to consider how to utilize brain breaks and the organization of her class. Having this understanding not only provided her with "*information on how to basically run my lesson,"* but it also helps with managing "*behavior[s] in my own class"* such as when "*children are fighting."* In understanding the brain and their students in this way, teachers feel better equipped for any disruptions that may occur in the classroom. Sarah shared, "*[instructing] becomes easier for you because you are aware of all these changes that can happen so you are looking, you're reading your environment."* She continued, "*the best part is me having it at the back of my mind as I am planning my lesson plans, just to make sure that I can manage my class and therefore have a smooth lesson.*" This proactive approach to instruction not only enhances classroom management but also contributes to a more supportive and conducive learning environment for all students.

Mary perceived such flexibility with her time and approach as an asset to her teaching. With her new understanding of the brain, she could modify her instruction to best support the students and their needs. She explained, "*I would say that they're performing better. Because of the knowledge that I now have, I can make special provisions for different scenarios."* With the awareness of brain states and subsequent behaviours, she believed she could best help through modifications. Like other teachers,

she shared, *"[if] we have a test and someone is ill or someone is hungry"* she could now assess this situation accurately and productively. Through meeting the need, such as providing time or food in this example, she could allow students to feel safe, valued and connected. Moreover, she explained, *"[when] someone is upset … I say, 'You can have a bit more time. If you need me to read the question to you, I will. [Or] if you need… take a walk and calm down.'"* These options were now available to students. Such adjustments to her teaching approach reflected prioritizing student needs and valuing students over the completion of the lesson.

In understanding the fundamentals of what the brain needs to remain engaged and in green, Grace noted that in her practice now *"there's more breaks and more [activities] to get your blood flowing then you can continue back [working]."* Allowing bodily movements and "*brain breaks*" in class was now thought to encourage green brain. Likewise, Sarah shared that prior to the intervention, she would have never allowed for breaks during class, for fear of losing time out of her lesson. However, Sarah now built flexibility in the classroom structure as a means for successful learning to occur. She also provided an example of her practice, sharing "*sometimes you get so caught up with a lesson and you want to keep going on and on, but then you are struggling with the class because they're tired."* The SA allowed her to instead be able "*to read them accurately and to manage behavior accurately based on how they are.*" With the understanding of tired students being yellow students, she could recognize that they are less engaged and productive, and therefore manage her instruction according to this need. For example, planning less intensive work for the end of the day, and allowing for breaks that involved movement, would help her proactively address students in a suboptimal brain state. Sarah

embraced her students' imperfections and aimed to continually establish safety. She still held high expectations for her students, but this was balanced with grace and understanding. As a result, she believed an even deeper trust was established between them. Teachers now remained actively attentive with student brain states as a method to maintain felt-safety in the classroom despite the inevitable interruptions.

Creating Connections Instead of Fear

An emerging theme in the data was found in the change of perspective towards the student-teacher dynamic. Despite still highly valuing education, teachers believed that if the relationship between student and teacher is not definitively safe, then students will be afraid at school, and therefore teachers will not be productive in their teaching due to students functioning in suboptimal brain states for learning. Therefore, building a warm relationship became central to the philosophy and practice of teachers due to its effects on learning. Christine shared that "*the relationship has really strengthened between the [teachers and students],"* demonstrating an approach that values the development of connection between the student and teacher.

The importance of a deep and meaningful positive relationship with students was noted. Mary explained how she was "*actually realizing that the relationship feeds into the performance or the lack thereof."* Through relationships, students felt safe, connected, and valued, and the students could better engage in the learning process. She believed that *"as I build stronger interpersonal relationships, I'm actually able to … realize a better performance.*" This newfound relationship style complimented, and was critical to, the academic success of her students.

Rose demonstrated a similar belief, as she shared, "*the moment you create that connection between you and your student … they value you … and once they value you … the things that you're going to teach, the subjects you are going to teach in class, they will really love it.*" Complimentary to facilitating green brain students, safe relationships were evidently desired in teachers' practices. She continued to explain that

> if you focus more on education, and you don't really focus on bringing the relationship part, you'll be … teaching, teaching, teaching, but most of the time you'll be teaching people who are not ready to learn, who are using, for example, 50% of their IQ or 75%. They're not giving it a 100%.

Teachers such as Rose were prioritizing the development of this safe relationship which in turn created academic benefits.

An approach like the Stoplight, which is centered around student-teacher connections, was immediately welcomed by two teachers, Grace and Christine. With reluctance to practice the traditional method, they expressed how they never felt properly convinced to conform to the requirements of the traditional teaching method over their years in the field. As teachers who had previously valued fostering a nurturing student-teacher relationship, the framework of a safe approach allowed them to to shift towards a more genuine teaching approach. For Grace, as a homeschool teacher, the intervention gave her an opportunity to integrate personal connection again. She believed that in the classroom, *"to be effective … is to connect.*" With the development of safety in her relationships, she was able to recreate and practice this original style of bonding she had with her students. Developing connections with students replaced invoking fear.

Through building connections in this way, Grace believed she was able to make progress in the classroom. Grace shared that *"when I really had the connection with a child … they were keen to please, really.*" Through connections, she believed she was better able to assist students to feel safe, increasing student productivity. Relationship building resulted in students being motivated to put effort into their learning. In extending empathy towards students, incorporating humanity and compassion, the results were validating for these teachers.

Continuing to develop safety in the student-teacher relationship in this way was a core tenet to optimizing learning. If students were feeling safe, they could confide in their teachers. This allowed teachers to better support their students by understanding their lived experiences. Therefore, teachers encouraged openness with their students, as Rose stated, "*the moment you bring them closer to you, they will be open.*" In other words, when students felt safe with their teachers, they would naturally express concerns or issues they were experiencing. Engaging with students in such a positive way in the classroom fed into building the student-teacher connection, developing ongoing safety within the student-teacher relationship.

CHAPTER SEVEN: QUALITATIVE RESULTS FOR THE SECONDARY QUESTION ON WHAT ELEMENTS OF THE STOPLIGHT 101 APPROACH WERE EFFECTIVE OR INEFFECTIVE IN PROMOTING CHANGE IN TEACHERS' UNDERSTANDING AND IMPLEMENTATION IN THEIR SCHOOLS?

According to the interviewees, there were both effective and ineffective components of the Stoplight Approach as it relates to their ability to promote change in their own teaching philosophies and practices. Notably, many of the components that aided this approach in moving forward, simultaneously offered hindrances for these teachers as well. These elements and their vacillating effects will be explored further in this section.

Personal Adoption of the SA

The personal adoption of the Stoplight Approach refers to the integration of the approach's principles into the personal beliefs and practices of teachers. Essentially, it includes teachers internalizing the concepts and strategies of the approach and applying them in their daily interactions with students. It involves understanding the underlying theories behind the approach, such as neuro-informed practices and trauma-informed care, and how this works in their own lives. This personal integration is an integral aspect of the SA, and is a best-practice towards integrating this into their instructional strategies and classroom management techniques. This encompasses teachers actively engaging in self-reflection and self-awareness to recognize how their actions and words impact students' emotional and behavioral responses. By applying the principles of the Stoplight Approach to their own behaviors and interactions, teachers can create a more supportive

and empathetic classroom environment. Through the data, two elements of the personal adoption of the approach were highlighted, including its relevant and relatable content, as well as the continual self-management required, which will be explored further in this section.

Relevant and Relatable

One of the components found to be effective in promoting change in teacher's understanding and implementation of the SA was the applicable integration of this approach into the individual lives of the participants. The neuroscientific psychoeducation provided awareness and knowledge of their own emotions and behaviours, along with the skills to realise and manage the behaviours in themselves and others. Grace expressed how "*personally, [the Stoplight Approach] made a lot of sense;*" the training content resonated with her and she could apply the new understanding to her own self. She continued, "*initially, it was more for my benefit, to be aware of my emotional state.*" Understanding her brain, emotions, and behaviours, relative to the colors of the Stoplight, was a monumental step for her in adopting the intervention. For the teachers, Grace shared, "*the moment we were trained, we were expected to get started with using the approach in our lives."* The training requested teachers to reflect on their own experiences, functioning, behaviors, cognitions, and emotions, in relation to the stoplight colors and teachings right from the introduction. Rose described it as being "*first about me as an individual,"* by allowing teachers to be "*learning about ourselves.*" To best engage with the training,, teachers were asked to initially practice understanding themselves through the SA perspective. Understanding themselves through the red, yellow and green lenses, allowed for an in depth comprehension of the theory.

The individualisation of the approach led teachers to develop an ability to understand the approach on an intimate level, allowing them to grasp the new knowledge in a tangible and applicable way. As such, Mary explained, "*just drawing from my own experience, I know, for example, how I process information depending on whichever emotional state I am.*" She acknowledged how her own cognitive ability can vary from day-to-day, relative to the brain state in which she is functioning in, due to a wide array of variables and influences. Likewise, Rose states, "*during the day, you might find there [sic] some issues that will take you from your green brain, and take you to yellow and take you to red.*" These teachers recognized the hindrances to their own functioning in scenarios such as not having had enough sleep, going without eating, or conflicts with students. Notably, the integration of the theory into their daily lives led to gains in personal awareness and understanding. They described themselves as better able to understand their emotional and cognitive states, and thus developed an intimate understanding of the approach.

Through this enhanced, articulated understanding of themselves, teachers stated the reflective practice proposed by the training was not only beneficial to their understanding, but also the implementation of the approach with their students. As per Bloom's taxonomy, the application of learned concepts signifies elevated comprehension and mastery (Krathwohl, 2002). Therefore, educators' enhanced capacity to seamlessly integrate knowledge into their teaching reflects the activation of higher-order thinking skills. This feature of the approach was thus beneficial in how they were able to perform at work day-to-day, as well as when interacting with others in their classroom. As Rose stated, teachers themselves need to *"come back to the green brain before you can help*

others to be in green brain." The importance of not only being aware of, but also managing, their own brain states was critical in facilitating a space where their students can also be in green. In essence, the cultivation of self-awareness and effective self-management among educators laid the foundation for fostering an environment where students can thrive mentally and academically, highlighting the profound impact of the approach in their own lives within the educational settings.

As a result, following this increased empathy and self-understanding, teachers expressed a related increased capacity for empathy and understanding towards their students. Moses shared how it was only when he understood the effectiveness of the philosophy and practice in his own life, that he could understand the urgency and importance of implementing such an approach with his students. Such personal insight reportedly allowed Grace to be *"open to understanding where [the students] are"* mentally and emotionally. Christine shared how, "*after understanding you, it helps you also to understand others … understand your class, understand the school, understand the people you learn with so that you're able to know their emotions and how to help them.*" Mary also found herself being able to empathize and sympathize with children following this process. She understood the students as an even more vulnerable population than herself, as they do not "*even have language for whatever it is that they're feeling or experiencing.*" From this experience, teachers exhibited the ability to extend the necessary compassion and responsiveness for their students and their situations, as was contrary to their previous practices. Being aware and understanding of themselves aided teachers to build the skill of awareness and understanding of their students.

Fundamentally, once the philosophy of the SA had been personally applied, teachers were able to shift perspectives to better understand and relate to students, a tactic they previously were not encouraged to employ. Through the personal process of applying the philosophy internally, teachers began to recognize how the approach could be applied effectively in the classroom with their students, and thus aided in shifting the teachers' understanding and promoted the implementation of the approach in their schools. This notably supports the findings of the Wen et al.'s (2011) study. The study demonstrated increased levels of effective change with teacher attitudes and beliefs when content was provided in a meaningful way. Beyond the education that the SA theory provided, the fundamentals of the teachings also resonated with the teachers; they were fascinated with its philosophy, and feeling inspired by seeing that it actually works, not only in the students but also in their own lives. In turn, this realization sparked an interest in, and exploration of, change due to its meaningfulness and relevance in life and work.

In conclusion, the personal application of the Stoplight Approach was a critical component for implementation. As teachers are ultimately the leaders of the classroom, the influence of the teacher, and the teachers' beliefs, on their students is monumental. Therefore, to effectively spread this philosophy to their classrooms, the preliminary personal reflective work that was required by the approach was advantageous

Continual Self-Management

Despite being a notable asset in the promotion of change in the classroom, the personal applicability element of the approach was also identified as a challenge. With the Stoplight Approach, individual emotional regulation skills are required. When individuals become physiologically heightened, Christine states how it is "*very important*

to know and to learn how to manage your [own] actions, how to manage your emotions" (Participant 0416, Interview, Pos. 286), particularly as the adult and the teacher. Thus, teachers needed to develop an enhanced skill set to manage themselves efficiently and appropriately so they could then better manage their students and their classroom. However, despite acknowledging the benefits, the inevitable nature of self-improvement to be a result of intrinsic motivation was deemed difficult for teachers, most especially as it was also identified as a novel skill for these teachers specifically.

The demand for teachers to continually self-manage themselves was deemed difficult to uphold due to several reasons. Despite the SA providing adequate support or resources for teachers to develop and maintain effective self-management strategies, the challenge still arose from the human nature of these educators, who are susceptible to triggers and changes in emotions (Katz, 1999). Rose demonstrated her struggle with continually managing herself, as she needs to remain in "*green brain*" in order to "*handle other people, to help them to come to the green.*" She stated, "*during the day, you might find there [are] some issues that will take you from your green brain and take you to yellow and take you to red.*" As it is only natural to be influenced by daily experiences, this is common. However, the approach still recognizes that "*before you can help others to be in green brain*" you must come back to the green brain yourself. Nonetheless, as Rose stated, that practice "*really takes a lot*" if you are feeling suboptimal yourself. Sarah also noted how students would test her ability to remain regulated and at an optimal capacity for teaching. Thus, this philosophy requires a generous amount of patience and ongoing reflection, which can be difficult to execute every day by individuals. Notably, such self-management could inevitably be a difficult component to uphold. Despite

acknowledging the challenging nature of constant self-reflection, teachers recognized that for this philosophy to be effective, consistent self-management was required.

However, this continual self-management can be difficult to avoid for other reasons. For one, teaching is already a demanding profession that requires significant time and energy. Adding the responsibility of ongoing self-management can become overwhelming, especially when teachers are already stretched thin with their existing workload of lesson planning, grading, and classroom management. Secondly, self-management requires a high level of self-awareness and self-discipline, which may not come naturally to all individuals. Teachers may struggle to consistently monitor and regulate their own behaviors and emotions, particularly in high-stress situations or when faced with challenging students or circumstances. Furthermore, external factors such as administrative pressure, standardized testing requirements, and societal expectations can further complicate the task of self-management for teachers. These external stressors can detract from teachers' ability to prioritize their own self-care and professional development. Overall, while self-management is recognized as an important aspect of effective teaching practice, the demands and challenges associated with it make it difficult for teachers to consistently uphold. Despite a supportive professional development aspect provided by the SA, addressing these challenges may further require systemic changes within the education system to better support teachers in their efforts towards self-management and professional growth.

An Innovative Philosophy to Teaching

The philosophy of the Stoplight Approach emerged as a particularly effective aspect of the approach. Grounded in neuroscientific studies, the SA emphasizes the

significance of emotional and physical safety for optimal outcomes, a concept supported by recent evidence-based research. This compelling contradiction challenged conventional teaching practices and sparked considerable interest among participants through the intervention training. Its practical applicability in the classroom surpassed previous methods, offering clear advantages that resonated with teachers, ultimately leading to their success in the adoption and implementation into their practice.

Evidence-based. This training process educating teachers on up-to-date neuroscientific research was shown to be an enlightening component for these teachers, as they were informed of current research that had not previously been integrated into their teaching philosophies. Most specifically, teachers were provided a "*deeper knowledge about the brain and how it affects [them]."* This indicates that Mary acquired insights into how brain function influences various aspects of their behavior, thinking patterns, and interactions. Sarah also expressed, "*the whole organization of it being related to how the brain functions is what fascinated me … That direct connection to the brain and how it functions."* Mary further explained, "*We had learned about these [red, yellow, green] parts of the brain, and it was just interesting to know just how our [experiences] are triggering different parts of the brain."* Evidently, teachers had retained knowledge of the physiological functions of the brain and human behaviour. This deeper knowledge empowered them to make informed decisions and adjustments in their teaching practices, taking into account the neurological aspects of learning and behavior.

Such education not only impacted how teachers understood themselves, but more significantly, how they understood their students, thus developing a desire for

instrumental change in their practice. This reportedly allowed teachers to be able to adopt this philosophy and practice in class. They identified an ability and willingness to perceive others' emotional states as this can impact the overall learning experience. Mary described this as "*enlightening*," noting how what "*goes on through your brain*" can have an impact on "*our overall learning experience, both for the facilitator and the learner.*" As such, teachers shared an interest in using the new approach in their practice.

Intriguing. After learning about the SA, teachers consistently observed and discussed the distinctive yet relevant philosophical principles of the approach. Mary and Grace described it as "*exciting*". Mary also described it to be "*fresh*", "*very intellectually stimulating,"* "*thought-provoking*", while Grace added that it was also "*enlightening*". Such understanding of the brain as it relates to behaviours and emotions was enticing for these teachers due to its novelty as well as in the academic support for the approach's foundational tenets. The unique and scholastically advanced component of the approach was ultimately a driving factor in promoting change in their teaching style.

Teachers were captivated by the new concept as this exposure to new information began to redefine their perspectives. It was noted how such an innovative philosophy of teaching acted as a catalyst for changing their philosophies and practices. Some individuals were significantly impacted by their limited exposure to teaching styles divergent from the traditional approach. For Rose, this style of training presented a novel experience unparalleled in her career, compelling her to embrace the approach. Having long employed a fear-based approach in her teaching philosophy, the revelation of the detrimental effects associated with traditional methods sparked a profound revaluation of her foundational teaching principles. This realization sparked a desire to examine and

adjust her beliefs and practices accordingly. For teachers like Rose, and others who had stated an openness to new approaches or had been feeling discontent with the old practices, the Stoplight Approach provided an outlet for their desire to change.

Remarkably, the training information was revolutionary to many teachers' philosophy and practice. Corporal punishment was not being taught as a useful tool to optimize learning, but rather a damaging one. From this, Mary expressed that "*this approach has opened a certain door in my mind,*" as she now perceived education in a new light. She added, "*it made so much sense that I was wondering why I had never used it before, but I didn't know about it."* Academically grounded, innovative methods that integrated psychoeducation on neuroscience and relationships powered teachers in their efforts to promote change.

Pragmatic. The innovation of this research-based content that the SA philosophy provided was reportedly informative, yet the practicality of this approach was also impressive. Strategies in the approach that focused on student felt-safety for effective learning were reportedly received well by teachers as displayed previously in Table 13. Its pragmatism places an emphasis on creating a safe and supportive classroom environment, providing clear guidelines for behavior expectations, incorporating strategies for emotional regulation and conflict resolution, and fostering collaboration between teachers, students, and parents. Additionally, the approach offers practical tools and resources for implementation, such as color-coded cues and structured interventions, to support consistent application in diverse classroom settings. Through these aspects, teachers felt that they were now better informed and prepared on how to manage their

instruction and the students in their class. This new practice allowed them to be ready for a range of behavioural issues, on a day-to-day, ever-changing basis.

For example, not only was Sarah provided knowledge and strategies, but she also highlighted the functional applicability of these strategies in her classroom. She shared how teaching "*becomes easier for you because you are aware of all these changes that can happen, so you are looking, you're reading your environment all the time.*" She expressed how now she is "*just aware of what's happening"* in her classroom, as it relates to her students' triggers, vulnerabilities, emotional states, and abilities. Understanding both her students' and her own social, emotional, and cognitive capacities, relative to the stoplight colors, allowed her to feel more competent in the execution of her job. Acknowledging that she is in red or that her students are in yellow was a practical tool for her in maintaining optimal learning environments. She could now meet the needs of the students appropriately, as well as take care of herself when necessary. This new implication of the SA approach could undeniably be applied to her daily teaching practices, thus promoting a shift away from her old approaches by integrating the SA.

Conclusion. The applicability and relevance of the SA content were highly valued by teachers, benefiting both their personal and professional development. The training offered additional education and a fresh perspective on the intricate dynamics of the brain, behavior, learning, and relationships, invigorating teachers and prompting adjustments to their philosophies and practices to better align with SA values. These findings echo those of Wen et al. (2011), indicating that teacher education programs addressing educational theory yield greater effectiveness. In this same vein, Orchard and Winch (2015) emphasize the indispensable role of educational theory in empowering

teachers to understand the rationale behind their actions, encouraging critical reflection on methods, and fostering a culture of continuous improvement in practice.

In conclusion, the appreciation of the SA content by teachers underscores its value in both their personal and professional growth. These observations resonate with previous studies, highlighting the importance of educational theory in enhancing teaching effectiveness and fostering a culture of continuous improvement in practice.

Requiring Time & Patience

As frontline catalysts for introducing, teaching, and reinforcing the new philosophy with students, teachers face demanding and rigorous efforts, as noted by Grace who emphasized the importance of bringing the Stoplight Approach to life in all circumstances. Adopting such an innovative and widespread approach requires upfront time and effort, which can be notably challenging. According to Moses, "*you find many of us [Ugandan teachers], we don't want to be that patient, we want to deal with the issues as they arise."* He continued, "*if someone does anything wrong, we wish to judge them there. If someone does something very bad, we may not have that heart of wanting to understand why they have done that mistake."* He highlighted the cultural inclination towards immediate judgment and punishment in traditional teaching practices. Corporal punishment and harsh consequences were immediately imposed on students for undesired behaviors, providing satisfactory but short-term behavioral change. However, the Stoplight Approach prioritizes long-term positive intervention, requiring patience and tolerance to address issues over time. As Moses shared, "*with the stoplight approach…there are issues which you have to give some time, maybe to allow someone to settle down and connect and then do the rest."* He emphasized the need to allow time

for students to settle down and connect before addressing issues, while also highlighting the lack of patience and resilience among teachers in the Ugandan school system. Similarly, Grace highlights the emphasis on learning "*how to just* [sic] *being patient with one another,"* allowing time to pass for healthy reconciliation to occur. Omitting immediate reactions and harsh consequences is foreign to many of these teachers, leading to difficulties in adoption and implementation.

Evidently, to maximize the benefits of the Stoplight Approach, a significant investment of time is essential for teachers to effectively impart and model its principles with their students. As teachers begin to incorporate the SA into their classroom routines, they not only introduce observable changes in practices and interactions but also address the nuanced, underlying dynamics that shape students' experiences. While overt adjustments may include visible alterations in teaching methods and interventions, covert aspects encompass subtle yet profound shifts in students' emotional well-being, trust levels, and overall attitudes toward learning and self-perception. However, the successful integration of both overt and covert elements demands patience and persistence, as these transformative processes unfold gradually within the classroom environment.

Cultivating a change in environment from their traditional experiences to reflect that which is prioritized by the SA is inevitably time consuming and inherently daunting. Additionally, the uncertainty that pairs with attempting a new task is a natural experience. Thus, despite being recognized as an important asset to the adoption of the SA, embracing such a novel approach required active and consistent follow through on implementation. Teachers were not only learning an entirely new approach, but one that incorporated contradictory beliefs and behaviours than what was previously applied. An

approach where students were required to fear their teachers was not conducive to the SA. Thus, changing their day-to-day classroom practices and engagements with students, implementing understanding rather than violence, and using kindness rather than threats was a big undertaking. Ultimately, this new intervention specifically required an increase of patience and tolerance with themselves, with others, and with the implementation process. However, due to teachers' inexperience with such an approach, both theoretically and practically, putting this theory into practice was reportedly complex.

Despite expressing excitement, readiness, and urgency for something new, upon introduction to the new approach, some participants noted feelings of doubt. Teachers acknowledged an appreciation for the SA in theory, however expressed uncertainty in its ability to function effectively in the classroom. Rose shared, "*one of the challenges, I think, it was doubt. I can call it doubt. We had doubt in ourselves if it will really work."* Likewise, Moses stated, "*I was doubting it because it was a new tool which I had never used. I thought it cannot work at all. That was the biggest challenge."* In comparison to the immediacy of the traditional approach used in schools, he was hesitant to believe that alternative approaches to deal with behavior management would be successful. He explained, "*how can this really happen? How can it be implemented in the kind of schools we are having in Uganda?"* Teachers were interested in trying something new, but they had their doubts of its viability. Doubt was highlighted as a challenge for many teachers due to their lack of familiarity and experience with this style of an approach.

Due to the contradictory standards of their past practices and the SA philosophy, the changes required by teachers were substantial. The process of implementing a new approach required time and patience of the teachers for themselves in the learning

process. As examined by Klein & Sorra (1996), innovation implementation is "the transition period during which [individuals] ideally become increasingly skillful, consistent, and committed in their use of an innovation" (p.1057). In addition, they also noted how implementation of an innovative practice, and not just the adoption of it, is the "critical gateway between the decision to adopt the innovation and the routine use of the innovation" (p.1057). With learning a new approach, intentionally choosing to use the new methods, rather than the old and familiar ones, consumes both time and energy in order to implement successfully. Teachers were required to deconstruct their old beliefs and actions to engage with this new approach successfully and implement. Mary explained the difficulty she experienced in replacing old methods with her new ones. As she stated, she was challenged with "*reverting to the old, trusted ways because it's what comes naturally to you because that's what you've been doing the whole time."* Mary was most comfortable teaching with her old strategies, they were familiar and natural to her. However, with the new approach, it takes "*a lot of intentionality and being very deliberate about practicing it daily*." It can be "*very easy*" to return to her old practices when conflict and difficulties arise. At times of heightened stress and pressure, it can be easy to return to practices that yield immediate and predictable results. Thus, she stated, "*that has been the main challenge, just reverting back to the old ways, reverting to what you already knew*." Returning to familiar practices is a convenient way to achieve immediate gratification, but in doing so, it undermines the foundational principles that the SA approach aims to uphold. Therefore, in the process of integrating new methods into their practice, maintaining patience and consistency in unlearning their old ways was a repeated notion deemed problematic in their motivation and ability to change and

implement the SA. Such drastic changes and learning curves led to frustration for some teachers.

Additionally, with the adoption of such a multi-dimensional approach to teaching, the time and effort required to integrate this into their current teaching practice was immense. Teachers noted how despite feeling supported in the training, the subsequent phase required to implement the SA into their practice was deemed long and tiresome, and this was a barrier in promoting change at times. In addition to the time it took for these teachers to learn and grow in this new philosophy themselves, teachers needed to designate additional, intentional time to teach and integrate this new method with their students. Christine reflected on her experience, sharing *"I think for me the challenge is, if you're not intentional, then you're likely not to actually start."* She evaluated the key factors necessary for successful implementation, emphasizing the need to "*designate time to actually talk about it, to emphasize it, and to bring in new aspects if you have to, especially if it's new."*

Due to the implementation being an ongoing process, rather than an immediate transformation, teachers identified the challenge of continuing to move forward with the SA while still fighting the ongoing desire to revert back to their old practices. Their previous practices were familiar in structure and certain in their outcomes. As it is an ongoing process, continuation and consistency were essential for success but deemed difficult. The repetitions required to implement this new structure for effective change were notably tiresome at times. As an approach that prioritizes long-term outcomes rather than immediate results, the lack of immediacy that was experienced in the early stages was occasionally exhausting and discouraging for these teachers.

Thorough comprehension and commitment of the teachers to the approach is deemed necessary to attain such a level of patience and thus effective implementation. Teachers recognized the hard work of whole-heartedly grasping and implementing a new approach so that it became integrated into the culture of the classroom. Grace explained, *"it's not automatic, that if you start talking green, red, yellow, then things will just get in place*." The approach is not implemented simply by bringing in and learning the colors of the stoplight. Rather, true implementation requires significant time and effort, from the teachers especially, to reinforce and develop safety in the classroom and with their students. It is only through consistency over time that teachers can begin to develop a trust-based relationship with their students. This is a gradual process that can outlast the time it takes to learn the content of the SA. Thus,

> All the time, you have to be relating it, you have to be relating to it, whether you're planning, you have to be thinking how do your children stay in green? If you have that language in you, then you are likely to actually implement it better, but if you do not appreciate it, then you won't implement it, because you'll feel like it's probably a waste of time. I think that you have to be very intentional when it comes to it.

Teachers were deterred by the depth of self-engagement demanded by this new operational approach, which necessitated heightened cognitive exertion alongside practical implementation

Introducing the colors and meanings of the Stoplight is new for many students, so allowing them time to learn and develop this language for classroom use is important. However, in addition to teaching students the overt aspects of the approach, like that of

the brain colors and meanings, the covert aspects of the approach also needed to be experienced by these students. Inevitably, achieving felt-safety takes time for students. The removal of shame and fear-based communication and punishment strategies was necessary to allow a modified student-teacher relationship, however, the absence of these tactics does not immediately result in safety felt by students. Safety is built through repeated positive interactions and developing trust. Due to past experiences, norms, expectations, and individual circumstances, it was noted that some students "*do not consider the class a safe space.*" Mary explained,

> Whether it is that they're coming from a home where they don't have open conversations, or whether it is about things that might have happened in the past between the teacher and the student. Maybe they said something and they were dismissed, whatever it is. Some students don't feel safe yet.

Through this example, one can see how the intrinsic fundamentals of the SA philosophy, such as that of student felt-safety at school, requires time to develop, delaying evidence of desired outcomes for these teachers.

Another dynamic of patience was addressed by Grace; she explains that there is a need to be patient with students as they adopt this approach as well. In her experience, for successful implementation to occur, students need to be given the time they need to regulate and connect. The complexity of an innovative approach that looks to address individual needs can be demanding. She explained how with the SA, "*you have to keep changing approaches on how to deal with them or deal with their behavior. It's not that I have this particular key.*" Due to the individualized approach, teachers acknowledged the extra time and effort this can take throughout the day, as compared with a uniform

approach to unwanted behaviours. With her students, she explained, "*sometimes you will not even understand what the children are going through, and you will have to probably be patient with them."* Maintaining consistency and patience with students, and allotting time in class for them to engage about their experiences, is critical for successful execution of this approach. Moses shared, "*it takes someone who has really understood this approach to be patient."* It is only teachers who are rehearsed and practiced in this approach that can demonstrate and extend patience with others during the implementation. Allotting time for students to adjust was deemed a major requirement to allow learning and executing such a novel practice.

Such tangible and intangible changes require an ambiguous timeframe for students to adjust and adapt with the changes. While the approach emphasizes long-term outcomes, the immediate process can be arduous and unrewarding, as noted by Mary, who states that it can be "*quite frustrating*" implementing a new approach because "*you'd think this would be the magic bullet to solve all problems in the class,*" however, this was not her immediate experience. She found it aggravating that the approach didn't immediately solve all classroom issues. This challenge underscores the importance of perseverance and patience for both teachers and students, as lasting behavioral change requires continuous reinforcement.. Mary expressed the importance of repetition, noting that student behaviours are a result of "*what has been constantly taught. Unless I am constantly teaching [this new approach], I am not going to see the behavior I desire.*" However, due to the duration required for change to occur, coupled with the effort required, poses a significant obstacle to implementing the SA in the classroom. It was

evident that navigating these challenges demands a strategic and resilient approach from educators.

Evidence of Change

For those teachers who persevered, eventually witnessing and experiencing positive change in their classrooms, this proof-of-concept instilled confidence and encouragement to continue to move forward with their implementation. Seeing positive results encouraged teachers to continue implementing the approach. Rose shared, *"so far, so good, we are seeing it working, and it is really helping us, first as a person to help me to become a better teacher, and to the students to help them to become better students.*" Rose described the positive change that occurred in the classroom as motivation to continue to use and integrate the teachings from the intervention into her new practice. She shared how the environment was more enjoyable for all with the changes that have been implemented. With increased communication skills between herself and the students, she reported experiencing less negative behaviours in the classroom. She laughed upon reflection of the initial doubt she felt when agreeing to integrate the new approach into her classroom. She expressed, *"the moment we started seeing change and improvement, first in ourselves, the way we handle situations as teachers … the way we handled students in classes [my initial feelings] really changed.*" She explained that it wasn't just the change she noticed in herself that helped her to modify her beliefs, but also in her students. She shared, *"then we came to realize that actually the doubt we were having, we don't have a reason to have the doubt anymore because it was a good approach, and it was really helping."* Rose believes daily use of the Stoplight practices relieved issues and encouraged productivity. Her experience with

the use of this approach yielded results that were promising for her and created a desire to move forward utilizing the approach. Classroom improvement acted as an additional incentive to continue to practice in this way.

Mary also reflected on her experience and was encouraged by the results of implementing the SA. She described this improvement as, "*the class is generally a happier place to be.*" Likewise, Christine acknowledged how this novel approach to classroom management had impacted her, experiencing excitement while using new methods. She added,*"it keeps being so because it actually makes a difference."* Both Mary and Christine's reflections underscore the tangible positive changes observed in the classroom environment through the implementation of the SA, emphasizing its efficacy in fostering a happier and more effective learning space.

Comprehensive Training

Through the multi-dimensional and thoroughness of the intervention provided by the SA, teachers felt sufficiently supported in implementing these innovative beliefs and practices into their classrooms. Following the model of implementing change in schools provided by WHO (2019), the use of resources such as books and booklets, suggested activities, posters, and facilitation guides were deemed helpful, in addition to the online course component with modular quizzes and access to virtual and in-person trainers. Teachers identified the comprehensive nature of the training program, relative to its structure, trainers, and resources, as an effective element in promoting change in their understanding and the implementation of the approach into their own schools and classrooms.

Training Structure. The extensiveness of the training was an asset noted by teachers in their understanding and implementation of the SA. Rose described her experience with the training as being "*five or six weeks"* and *"really thorough.*" She believes this process provided enough time for her to build a solid foundation of the approach before moving to the actual integration into her classroom. Likewise, Moses shared that through the organization of the course, he felt the training had well equipped him for using this approach in the classroom. The training allowed him to feel self-assured, experiencing confidence in taking what he learned in the training and applying it to his everyday classroom instruction.

Online Course. As an introduction to the training, the Stoplight 101 online course was utilized. The online course was designed to begin prior to in-person or virtual engagements with trainers, providing the basics of the intervention, and allowing teachers to initially learn and study on their own. This aspect of the intervention was particularly highlighted by Rose as a monumental asset. She believes this component *"enabled us to really understand what Stoplight Approach is all about."* The online component was critical to her overall comprehension of and transition towards the SA in her practice.

Access to Trainers. Teachers also identified the trainers themselves as an asset to promoting change in their philosophies. Mary identified the team of trainers as an effective aspect to her understanding, keeping her engaged and interested. Rose identified the ongoing engagement of trainers in follow up SA learning opportunities as an effective component for change. She shared an appreciation for the follow-up process, stating, "*through continued training by [the trainer] and the head of school"* these supports have "*really helped me as a person [and the staff] to really understand the Stoplight."* Rose

shared the value she saw in the ongoing support of the trainer through weekly check in's and follow ups, sharing, *"[the trainer] didn't just stop [with the online training], because she has a class with the students once a week, where she comes, and they do a lot of practical activities on Stoplight.*" Support from others in the implementation process was notably critical for these teachers.

Additional Training Resources In addition to the intensive in-person or virtual meetings, the intervention was also backed with practical materials that explained and described the new philosophy. Teachers found such complimentary resources additionally supportive, helping to solidify the knowledge and subsequent implementation of the foundations they were provided in the training. The reference booklet provided during the training acted as a tangible resource for content review. Rose shared, "*every teacher was looking forward to want [sic] to interact with the booklet."* It provided the information she needed in a straightforward way to continue implementing the approach. This is displayed in Figure 3, 4 and 5. Thus, she noted that since the training, she had been using this resource as a continued guide. She stated, "*through*

Figure 3

The Stoplight 101 Booklet Cover Page

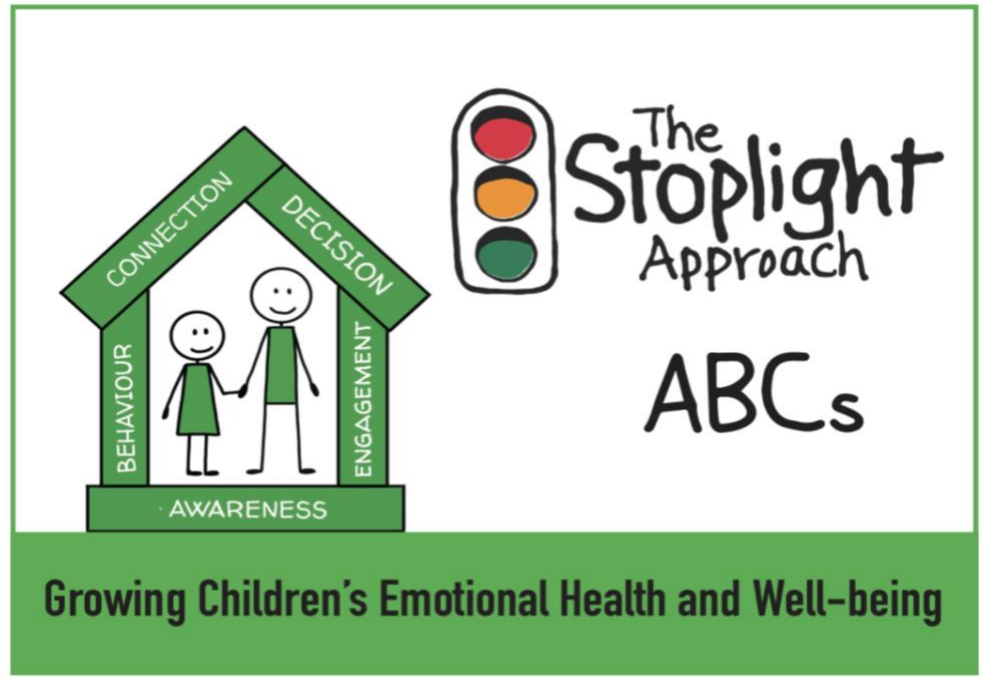
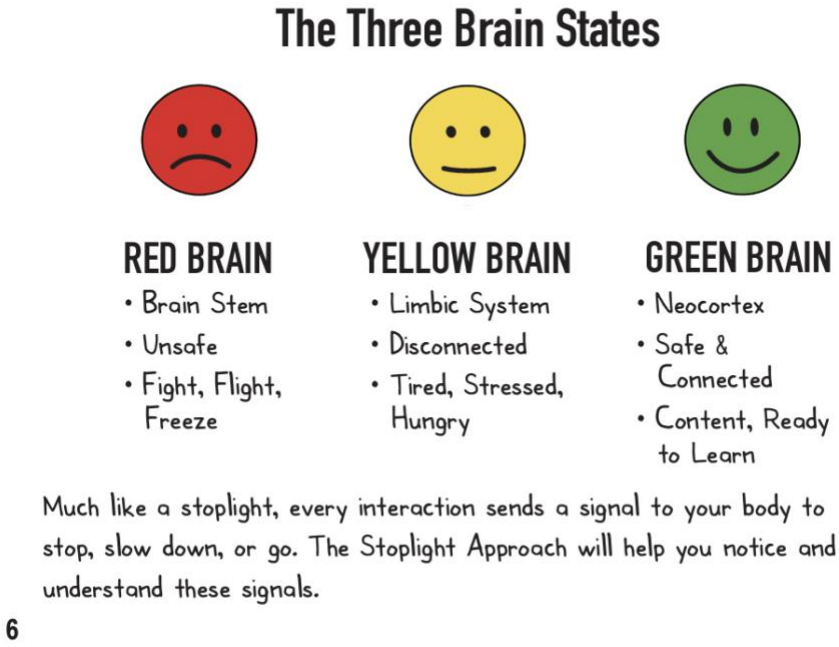
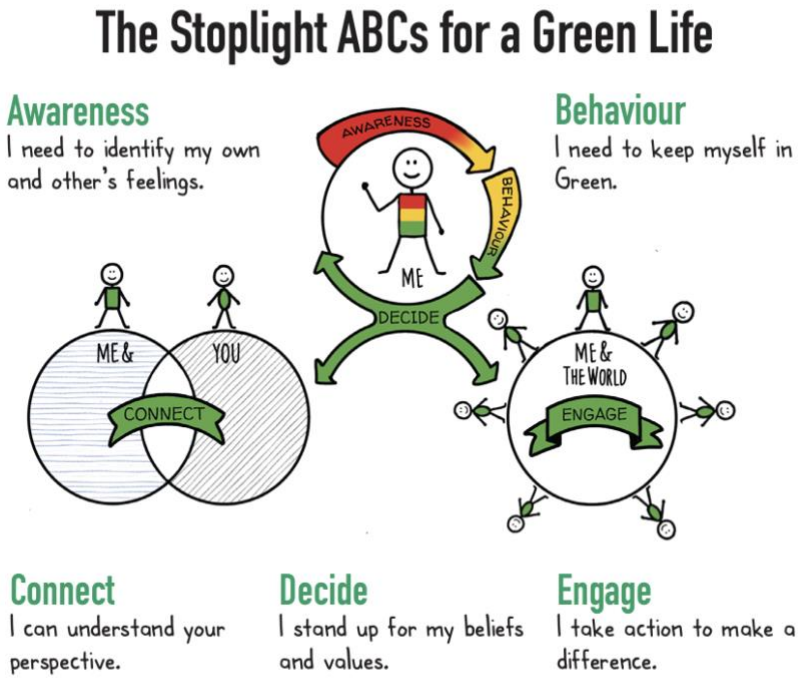


Figure 4

Three Brain States, as found in Stoplight 101 Booklet, p. 6



The Stoplight ABCs for a Green Life, as found in Stoplight 101 Booklet, p. 51



that booklet we have been able to work through [the SA implementation] as a staff and it has really been helping us and also the students."

The resources acted as a supportive reference for ongoing practice of the approach in the classroom.

Other teachers also noted the provided literature to be an aid. For Mary, addendums of various forms were helpful. Mary expressed, "*I think it has also helped to have some supporting*

worksheets and charts to break [information] down." Likewise, Christine shared her appreciation for the resources, referencing the teacher book specifically: "*I read the book. ...I still have that white-green book. Every time I need to refer, I need a reference, [sic] I'm stuck somewhere, I go back to that book, and I read.*" These reference materials have

been notably supportive for consistent integration of the approach into her teaching philosophy. These practical resources have provided teachers tools to use in the classroom to allow continued use of the new approach rather than returning to their old practices. In addition to being provided with a solid, evidence-based foundation, teachers noted the comprehensive nature of the training to be an asset. Through intensive training on SA concepts, accessibility to trainers, and additional resources, teachers reported these elements as effective in changing their understanding and the implementation of the SA.

With such a grand task of adopting an entirely new, unfamiliar approach, the comprehensiveness of the content and the training were notably helpful for teachers. The training material and design were structured to emphasize reflective learning, critical thinking, and the application of knowledge, surpassing mere memorization and cognitive saturation, using various methods to engage participants in the training. Through a constructivist style of teaching methods, trainers were encouraged to assess their traditional beliefs and practices to construct their own understanding of concepts through exploration and reflection, through an emphasis on active learning, critical thinking, and problem-solving. This contradicts previous approaches studied that demand change and impart new rules with limited explanation of functionality and purpose, such as that of the Good Schools Toolkit (DeVries et al., 2015). Unlike other programs that simply demanded the elimination of corporal punishment without foundational reasoning, this approach provided a thorough education on an alternative concept. This appeared to be an effective element in promoting change in the understanding and implementation of the new approach by these teachers into their schools. Such a comprehensive education

structure served as a robust foundation, empowering teachers to foster shifts in their philosophies and practices, far beyond what a basic presentation could achieve.

Collaboration of Stakeholders

Despite being an intervention taught primarily to teachers, it was structured to be shared and used with all parties involved in the student learning process, including the administration staff, parents, and students. Despite it being a significant avenue for change, the SA approach does not focus solely on changing the teacher's perspective. It also urges buy-in from others involved, signifying a holistic approach to implementation. In many cases, the approach is first introduced to the headmaster, who then invites, or mandates, their teachers to be trained. Often, the intervention training can be open to other staff members, such as administrators, custodians, and teacher assistants as well. Parents and students can be informed of the approach by the teachers during parent-teacher meetings, along with in class discussions with students. According to the participants, this collaboration was deemed an effective way to promote proper execution of this approach. For those participants where other staff and parents were involved in the training, the commonality and accountability of others in their circle was noted to be an asset. For those without such a thorough amalgamation, they could see the potential value in a broader inclusion of stakeholders.

Involvement of Collective Staff

First, the involvement of the school as a whole was deemed advantageous when implementing this new approach. Moses shares how he uses the SA as it is an approach the school selected to adopt into their philosophy. When the intervention was being

implemented by all members, his ability to integrate the approach into his practice was encouraged, having multi-faceted support secured.

As an aid in the ease of implementation, many teachers specifically identified how a supportive headmaster was an effective element in adopting this approach. Mary noted that for her, the headmaster "*was very happy for us to implement it in our classes and they encouraged us to do so.*" When approved and adopted by the headmaster in the school, it was integrated by the teachers due to the backing of their leadership. When teachers needed support, they were able to reach out and ask for help. Christine shared how she could even approach the headmaster for SA advice and consultations, as *"she's always available to help.*" Grace agreed, sharing that at times of struggle, she would go to her headteacher asking, "*What can I do better to help this child?* "" thus enabling teachers to experience cooperation and unity while implementing the approach into their practice.

In some examples, headmasters also demonstrated their support from the top-down, where new teachers were taught the SA upon introduction to their position. Rose explained,

> [The Headmaster] makes sure that she takes [the new teachers] through the Stoplight Approach and give them the booklet and then they go and learn through it so that we move together both teachers and students, by understanding what it's all about, and now being able to implement in our own different areas.

With the support of the headmaster, Rose noted reduced opportunities for pushback from other teachers or other authorities that were contradictory to the SA principles, thus encouraging continued implementation, deeming this to be helpful to her own practice.

When embraced by fellow staff members, teachers appreciated the ability to rely on each other during difficult circumstances. Christine emphasized collaborative efforts among teachers to ensure effective implementation of the approach, reinforcing progress and mutual support. Colleagues provided assistance to teachers facing challenges, facilitating their advancement. Grace acknowledged the benefit of an approach in which she could confer with her colleagues, allowing teachers to be able to reassess during struggles. She explained how with this approach, "*you take a break…you talk to other teachers"* allowing her to continually be *"consulting and finding out what can I do better."* The ability to have ongoing discussions with other teachers who were working towards implementing the approach was deemed helpful in moving forward in their own practice.

Inclusion of Parents

As an aspect of the approach, teachers were provided the means to extend the philosophy to incorporate parents. For some, meetings regarding the integration of a new approach would involve parents. This was reported by both Grace and Rose, as Rose specifically stated, "*the mainstream staff, the teachers and the parents, they were among the people who are in the meeting, in the training. We trained together."* In this way, teachers again could feel understood and supported in their approach. Rose expressed that "*some of the parents were really very happy with it, and they really supported it after being explained [sic] to them.*" By including the parents, teachers were gaining the support of the caregivers which helped further facilitate the adoption of the approach in their practice.

Such parental involvement, as encouraged by the SA, was deemed beneficial for Mary as well. When serious issues in class would occur, she explained her tactic as follows,

> Usually, we would call a parent in to try and gain an understanding about what is happening at home that is affecting the child at school, and then we know how we can hold each other accountable on both ends so that the child is supported both at school and at home, and we're speaking the same language.

Mary recognized the advantages of consistent practices between home and school environments, attributing her increased success in the classroom to this alignment. As a teacher who actively engaged parents using a shared language, Mary found that this collaborative approach facilitated improved communication and cooperation with families, resulting in a clear understanding of student objectives. This alliance not only streamlined implementation efforts for Mary but also enhanced the overall effectiveness of her teaching approach.

Rose expressed a similar perspective, agreeing with the usefulness of the inclusion of parents. She stated, "*it is not only the role of the teachers to implement the Stoplight Approach in classroom, but also the house parents, [who] are coming in,"* recognizing the importance of "*incorporating the Stoplight Approach in everything that they're doing."* In her experience, she felt that the issues with students decreased due to aid and support from the home.

Likewise, Christine noted that parental involvement was also an integral part of her intervention implementation. She stated that the successes and failures of students go beyond *"[just] the teacher… it [also] goes back to home… Even to parents.*" As the

progress of a student was understood to be influenced by their home life, Christine felt she was successful in moving forward with a student in the following example, as she was able to discuss the student issues with SA informed parents. Despite one of her students struggling at school for some time, when Christine extended her practice to include the involvement of parents, she believed she was able to understand the root of the issue and optimize success in the classroom through being understanding and creating a safe space for the child to deal with the difficult situation experienced at home. She explained,

> I had that challenge with a child whose parents were going through, I think, a divorce process or something like that. It would really eat [my student] up. I almost lost that girl. She wasn't happy anymore. She wasn't learning to the best of her ability. She wasn't engaging with her friends.

As a result, the teacher reached out to the parents to discuss the mental health of the student. She shared,

> I ended up talking to both parents because I felt like I'm losing this happy child. She was no longer happy and yet we need safety, we need that happiness of that child. For her to have learning going on smoothly [sic]. I talked to the girl, I had to talk to her parent.

Christine acknowledged how the issues at school could be a result of issues at home. By applying the SA intervention model, Christine states that the situation "*turned out well."* She added, *"yes, it was successful actually. Now I have a happy child. I have a happy girl. I talked to the parents. Though I couldn't stop the divorce, but at least, I stopped that mental disturbance at home for the child.*" Collaborative efforts with the

parents, as guided by the SA framework, empowered Christine to move forward productively. Reflecting on the outcome, she acknowledged the significance of addressing home-related issues in creating a conducive learning environment and ensuring the student's overall happiness and academic success. Thus, such inclusion of the parents was deemed effective in enhancing the benefits of the approach, as when parents were informed, and could speak the same language and shared understanding, resolutions could be obtained.

Student Engagement

The active integration of students into the implementation process was also acknowledged as a successful component. As a part of the teacher training, following their own learning, teachers were instructed to share the approach with their students. The SA language, goals, vision, and expectations were all integrated into the classroom with students following the training. Rose expressed how "*it first began with us by training, and after that, now we went and trained our students and also implement with them [sic]*." Explicitly including students in the understanding and implementation of the philosophy was an integral element of the SA. This was also identified as another promoter in changing teachers' understandings and practice.

According to teachers, involving students allowed an unforeseeable ease of student interactions that was not previously present. Despite the time and effort required for students to learn and understand, teachers remarked on the significant improvements in their classroom dynamics when students adopted the SA. Student inclusion allowed the development of a common language to create shared understanding and communication, progressive social-emotional student development, and student responsibility and

accountability. The intervention was designed in this way for students to be included in the implementation process, creating a student-directed environment for both learning and developing.

Common Language. As a result of student inclusion in the training, Sarah expressed how she was actively "*talking to the children about the Stoplight*" and "*using the language of the Stoplights and the colors and having the colors in our classes to represent the brain states*". Mary shared a similar experience, as she explained, "*we talked about the traffic lights, we talked about the brain. We had been learning about the brain already, so they were aware of the different parts. Then we talked through the colors and what those mean. We just went around just saying, 'oh, I'm red' or 'I'm green' or 'I'm yellow' and why.*" Through labelling optimal neocortex functioning as green brain with subsequent green emotions and capacities, along with the limbic system as yellow brain, and the brain stem as red brain, a common language surrounding individual functioning, emotions, and abilities was now present throughout the classroom.

Allowing a common language to develop with a shared understanding that was suitable for children and adults alike was constructive and practical for communication, according to teachers. Mary stated the 10-year-olds that she teaches "*have quite a good understanding about emotions, about the brain,"* and this "*makes communication easier*" as it allows teachers and children to let others know what brain state they are in. She shared, for example, being able to say*, "'I am in red. I am in green.' …Communication is better in that regard."* Grace agreed, sharing, "*using the language in class, the colors in class, and having, of course, the children use them as well, whenever they feel they are in a certain brain state. You can relay and then find a solution.*" The simplicity of the

language was easily transferable, which made it "*the easiest of all you can apply,*" according to Christine. The scientific names of the brain *"may have been a bit complicated for the kids."* However, with the use of the SA language, *"using the colors, which is similar to what they see almost every day of their life, [sic] be it they're walking, they're coming to school, they are driving to a mall or somewhere"*, Christine expressed that it allowed an easy understanding of the concept to use and reference in their language.

Enhanced communication allowed the approach to be easily integrated daily in communication and classroom tactics. Grace stated, "*I feel like the opportunities for use in the school settings are many, not just even in the classroom. There's also the playground and just the one-on-one interactions we have with different children.*" Rose also shared this sentiment, recognizing its relevance for use beyond the classroom "*during the after-school hours, when they are in games, when they're doing sports, when they're doing house chores and other activities.*" Whether during instruction or at recess, teachers felt they could better communicate with their students through the communication channel the Stoplight offered.

Social-Emotional Development & Responsibility. In addition to a shared, common understanding between teachers and students, the social-emotional skill development that transpired from implementing the Stoplight Approach was also a noteworthy component for teachers in promoting change. The approach teaches empathy and compassion for others, and thus empowers students to manage situations in this way on their own in the day-to-day. With this approach, students are expected and encouraged to use this philosophy with their teachers, as well as in their interactions with each other.

When teachers could consistently achieve this level of implementation, teachers found less disruptions and issues in the classroom. Grace elaborated, "*if the children could sort out some of the issues themselves, life would be so easy for us as teachers.*" With this new approach such an outcome seemed possible. She continued to articulate how now "*[students] are aware when they've hurt someone…Some of them are really looking forward to reconcil[ing]…they feel bad…I see that among them being very intentional about reconciling and moving from one brain state."* Moses also noted, "*you can even find students trying to sort it out advising the one who has committed a mistake to really accept that he's the one in the wrong … they apologize to their friends, and life continues.*" Rose shared a similar experience, as she stated, "*you could see that unity among them. Before that they will seclude themselves, you find you have different cocoons, different groups of students, but because of bringing them together and knowing that we are doing this…for our school.*" Students appeared to teachers as solving problems pleasantly and collaboratively having adopted compassionate hearts.

Rose explained how, when the SA was taught to students, it empowered them to take responsibility themselves in creating safe environments for themselves and others. She explained,

> Because we are taking our students through the Stoplight Approach and making sure that they all try their best to create a green environment and a green school, it is like a responsibility of each and every student in that school to make sure that in whatever they do, in how they handle each other, in how they handle teachers, everything they do they try their best to come up with a green school. Since they know it is not only about the teachers, it is not only about the students, it is a

whole responsibility of all of us, they take it as an initiative to make sure that classroom management is proper.

Rather than leaving all accountability to the teacher, students were being accountable to themselves and their peers to enable safe, optimal learning. Rose shared how this student involvement was an effective element in implementing change for her, stating, "*because of that, it's really giving teachers not a hard time to manage the class because they have really understood the importance of having a green environment in our school."* Teachers and students were working towards the same goal of a safe, green environment for all, as they were both included in the adoption of the approach.

With students learning social-emotional awareness, Moses shared that it was "*very impactful because students learn to make their own decisions. Since they know that they are responsible for their behavior and conduct, they know they are accountable.*" He also stated that students reportedly understood the weight of their actions and the consequences, allowing them to more easily *"make better decisions to avoid such unbecoming behavior, to avoid the indiscipline cases.*" From the teacher's perspective, students were making respectful choices in class, reducing the need for teacher intervention. With increased social-emotional learning, teachers recognized reduced problematic behaviours in the classroom.

In this same vein, this led to individual ownership and contribution to an adaptive working environment for both students and teachers. Christine observed student ownership of their academic process, as she felt like her students now "*own their learning.*" She continued,

> The moment [the students] realize what is required of [them] and how appropriate [they] should behave in a school, because we have our rules, you know those classroom rules, and then the values …[that] we make them as a class. What is required of us? …it is a big reminder of who we are and what we really need every day.

Student involvement was effective in this change process, as it allowed students to adopt a new perspective towards learning and work completion where they felt actively involved in the process, having their voice heard.

Student inclusion was deemed a catalyst for teachers, as it reportedly helped decrease issues in the classroom requiring teacher intervention. The social-emotional skill development eased the burden of teacher responsibilities and increased desired student outcomes as it provided student empowerment over their own emotions, cognition, behaviours, and social interactions. Such findings align with the study by Bracket, Rivers and Salovey (2011) in which overall social and emotional development occurred when emotional intelligence became the focus of teachers for their students. This study assessed how emotional intelligence, described as "the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions" (p. 89) may help individuals navigate their "social worlds" and make better choices about "engaging in self-destructive behavior" (p. 97). It expressed how emotional intelligence may also influence other aspects of student performance in school (p. 96).

Through the SA, students were taught emotional understanding and management, and learned how to advocate for themselves and others in an agreeable way. This level of

student involvement allowed students to become ambassadors of the approach in its implementation in the classrooms. Students were able to adopt this approach to receive their own individual benefits, such as improved relationships, giving and receiving respect, and the opportunity to communicate and express themselves. With such engagement from students, teachers feel they are working with the students rather than against them, thus feeling productive and supported. For these reasons, student inclusion was deemed helpful by teachers in the implementation and continuation of the approach in their classes. Teachers deemed student inclusion helpful in implementing and continuing the approach in their classes, as empowering students with knowledge of the new approach was considered an effective element for creating change.

Demands Collective and Personal Endorsement

As demonstrated in Klein & Sorra (1996), the support and endorsement of key stakeholders, including teachers, administrators, parents, and students, are crucial for successful implementation. A notable principle that emerged from the data was the openness and willingness of the teachers interviewed to attempt something new. Without buy-in, resistance to change may hinder progress.

As an example, Rose expressed how the introduction to the new approach "*generated a lot of discussion and debate*." This was due to the SA's contrast with the typical practice in Ugandan schools, as the "*culture is quite different, and we do what we know.*" Teachers in Uganda were mostly "*raised a certain way,"* acknowledging the common fear-based approaches, and therefore the "*default is to do it as you were raised."* In her experience, she observed that "*not everyone gets it, because sometimes we're stuck in our way of thinking.*" As a result, "*there was a debate with one particular teacher, and*

it was very infuriating, to say the least, because you realize that someone isn't really getting it, and yet, it's so critical to our practice." Despite how important it appeared to her, she recognized that some teachers are unable, or unwilling, to grasp and adopt such a new approach into their teaching practice due to a resistance to change. They appeared to be comfortable with their existing methods, denying the challenge of implementing a new approach as it is disruptive to their established routines.

Likewise, Grace noted a similar experience. She shared, **"***I think that's the main frustration… that not everyone gets it*." From her experience, many of the teachers demonstrated an openness and acceptance, however, because "*it's a different culture, the implementation isn't going to be automatic.*" Therefore, she recognized how such a change in an approach is about changing the mindsets of teachers, which can be a complex task when recognizing the commitment some have to the traditional approach. This is a change in their "*approach to disciplining and just the manner in which people talk to children. It's something that one has to be very intentional about, or really, really understand the impact of. I think once one gets it; it ceases to be a challenge,"* Grace continued. Thus, having teachers who are on board and committed is deemed essential for effective implementation of such a culture change.

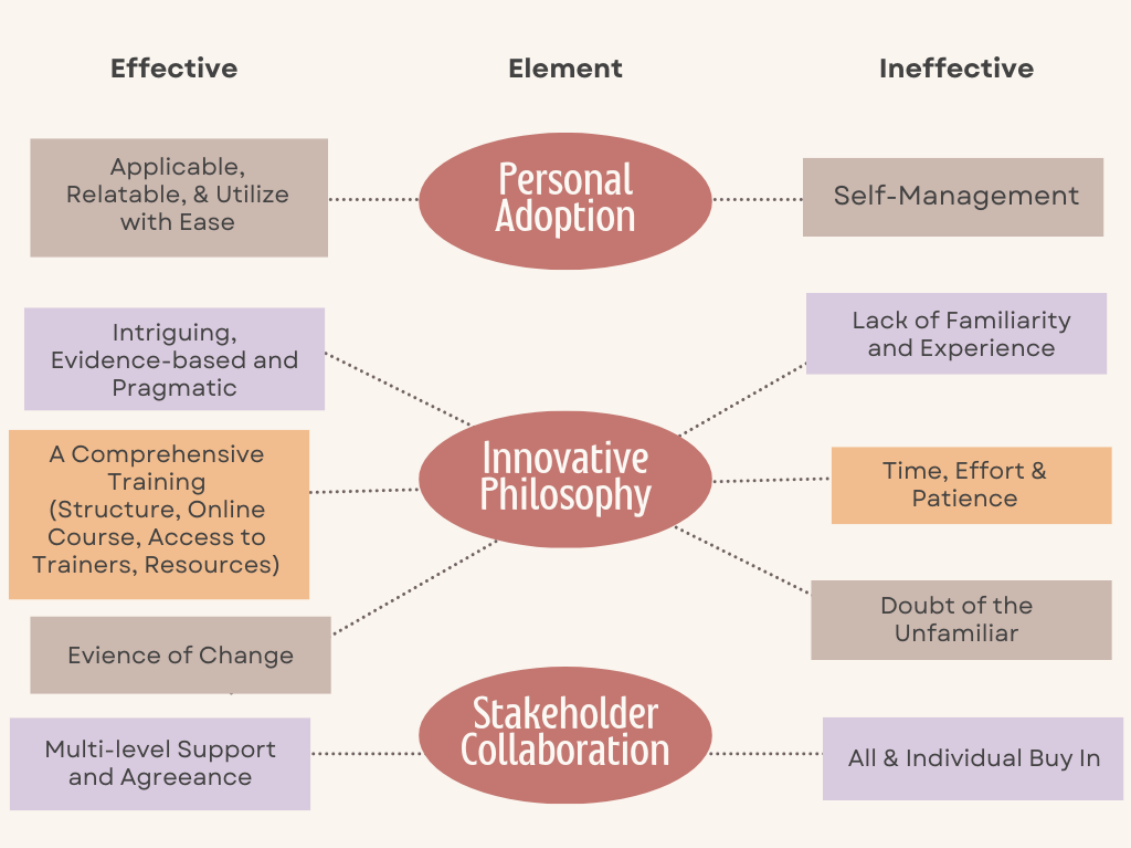
This hesitation was also noticed by Mary, as she stated, **"***it was a bit of a mixed reaction amongst the teachers.*" She identified two different groups of people, one being "*those who have been in the national system long enough*" and therefore "*only know that the traditional way works well*," while the other group "*haven't been in the system long enough, so we are willing to try out everything.*" She also acknowledged the complication that occurs when introducing such an contrarian approach relative to the traditional

system, and teachers who are established in this framework, causing some friction. Additionally, Mary anticipated similar resistance from parents when introducing the new approach, as many parents remain comfortable and confident in the traditional approach that encompasses corporal punishment. This further complicates the implementation of an innovation such as the SA.

Thus, for the SA, willingness to accept and adopt a new belief-system was necessary for teachers to create ownership of the concept for proper implementation. According to Rogers' Diffusion of Innovations theory, individuals vary in their readiness to adopt new ideas, with some being early adopters and others more resistant to change (Rogers, 1962). However, participants in this study demonstrated openness to change, which is a key factor in successful implementation. For some, the Stoplight complimented internal beliefs that already existed; for others it was a new way of thinking. Thus, the training appeared to be a solution to a problem that all participants were ready for, enabling its effectiveness for implementation. This further supports the literature on innovation implementation, which emphasizes the importance of individuals feeling a sense of ownership and agency over the new approach (Klein & Sorra, 1996). This ownership fosters commitment and dedication to implementation efforts. Overall, the significance of readiness for change and ownership in facilitating the effective implementation of innovations like the Stoplight Approach is evident. Figure 6 demonstrates these themes and their interactions as it relates to the contradiction of the effectiveness and ineffectiveness relative to the specified element.

Figure 6

Elements of The Stoplight 101 Approach and Their Relations that were Effective or Ineffective in Promoting Change in Teachers' Understanding and Implementation in Their Schools.



CHAPTER EIGHT: DISCUSSION

Conclusions

The primary research question of this study was to assess how the Stoplight Approach 101 impacted teachers' beliefs and classroom practices as it relates to corporal punishment. The findings found in the quantitative and qualitative data suggests that change had occurred. In assessing the change in teachers' beliefs and practices, it appeared that the Stoplight Approach had created an impact. Through self-reported reduction of corporal punishment, as well as other verbal and emotional forms of child maltreatment, themes supporting this finding were identified from both the quantitative and qualitative portion of the data collection aimed to answer this primary and secondary question. Most notably, item frequencies increased between the pre- and post-training, as assessed by the Teacher Philosophy Survey administrations, that related to positive change. Additionally, the interviews demonstrated teachers incorporating methods to develop safety, notably through eliminating corporal punishment and other verbal and physical forms of child maltreatment in the classroom. These occurrences were not present pre-intervention as per the initial survey conducted.

From my analysis, it was demonstrated that teachers were utilizing the language introduced by the Stoplight Approach, reflective of a neuro-informed approach, contradicting that of previous practices. They exhibited an acknowledgment and tolerance of varying brain states, emotions, and abilities of students. This called the teachers' attention to the influence they have on the classroom, especially as it relates to the perceived emotional and physical safety of students. They expressed an intentional practice of being aware of self and others at school that was previously absent.

Thus, an emphasis on the relational approach between students and teachers was demonstrated through their descriptions of teacher-student interactions. Enhanced communication between students and teachers was reportedly now present in the classroom. This included a reduction or removal of fear-based tactics, including physical and verbal abuse, as well as the addition of positive interactions. Teachers were integrating positive speech in everyday interactions and verbal explanations in the presence of discipline.

With a new approach, teachers embraced new experiences and new methods. Classroom acceptance of concepts encompassing a growth mindset, individualized learning, and student engagement in learning were present. Student behaviours came to be viewed as the teacher's responsibility to understand, to identify the need to be met with compassion and empathy. Such needs were deemed a priority over lesson completion, increasing teacher flexibility in their classroom instruction, demonstrating a change in their student management strategies and abilities. Most importantly, teachers highlighted the importance of developing positive connections with their students rather than instilling fear and demanding compliance.

Notably, the previous structure of the student-teacher relationship was not designed to be considerate or compassionate towards students. The physical and verbal abuse that was present was dismissive of the students' experiences and emotions, and enforced conformity and compliance. The worse the student behaviour, the harsher the punishment. These old practices utilized minimal-to-no effort to explore the why behind the student's behaviour respective to their individual situations. However, teachers no longer felt like it was their duty to strictly discipline and ensure their students were in

line. Rather, a student-teacher relationship where students feel understood, heard, and supported by their teacher, in order to encourage optimal learning, has become the underlying philosophy of their practice. This transformative shift towards a more empathetic and supportive approach not only fosters a positive classroom environment but also empowers students to thrive academically and emotionally.

When this occurred, teachers acknowledged the accountability between teachers and students in the classroom as a useful tool they were able to utilize in practice. Through eliminating punitive measures and authoritarian control, they were able to encourage student autonomy, promote intrinsic motivation, build trust and rapport, and incorporate problem-solving and self-regulation. By promoting these values teachers were able to instill a sense of ownership and responsibility among students for their academic performance and conduct, leading to a more conducive learning atmosphere and overall student well-being.

As an exploration of the secondary question of this study, comments on the effective and ineffective components of the intervention itself were noted. The personal application, intertwined within the training, was highlighted as an effective strategy for teaching and understanding a new approach. However, the demand for teachers to be continually self-managing themselves was deemed difficult to uphold. With such apprehension present, the inclusion of additional resources in the SA Training program structure to address these concerns could be one future improvement, as recommended by the participants. Engaging in follow-up social emotional learning (SEL) sessions that involve “implementing policies and practices to teach teachers competencies and skills to assist in the development of self-awareness, self-management, social awareness, making

reasoned choices and developing and maintaining healthy relationships" could be implemented to further develop teachers' social emotional competence (Durlak et al., 2011). Integrating additional teacher oriented SEL sessions in the SA training could allow them to better create nurturing, safe, and healthy classroom environments, and ultimately lead to higher academic achievement. Ultimately, the practical application component encourages teachers to continuously refine and adapt their practices based on ongoing learning and feedback. It involves a commitment to professional growth and development, as teachers strive to create a safe and nurturing learning environment that meets the diverse needs of their students.

Secondly, the innovative Stoplight Approach contradicted their traditional approach in many ways. These contradictions made the approach stand out, as it was evidence based, meaningful, and novel, thus making it intriguing. Nevertheless, the absence of familiarity and prior experience in applying such an approach posed challenges during the learning and implementation process. Additionally, integrating the approach necessitated a considerable amount of time, as such transformations cannot happen overnight. Similarly, teachers observed that their perseverance yielded the benefits of the ongoing implementation of the approach. Due to the thoroughness of the training structure, content, resources, and trainer presence, they felt supported, capable, and better equipped.

Lastly, the collaboration among all stakeholders was effective because it provided multi-level support when everyone participated. However, this aspect of implementation was challenging because only individuals open to new approaches and change could provide support, while those resistant to change could create difficulties and tension.

Implications

In the Ugandan school context, some teachers, such as Mary and Moses, adhered to traditional practices, including corporal punishment, viewing it as essential for maintaining discipline and respect. They believed that harsh measures were necessary for students to learn and adapt within their cultural norms, prioritizing obedience to authority figures over alternative disciplinary methods. Given that strict disciplinary measures and high expectations for academic and behavioral success among students are ingrained in traditional teaching methods, encountering teachers who were hesitant to adopt the SA approaches was entirely anticipated. Thus, the response of these teachers to be open to introducing such a contradictory philosophy was promising, reinforcing the benefits present to the mere introduction to the SA as an alternate approach. Simply the act of providing teachers a different strategy, in the way that the SA has done, was enough to encourage change.

Positive outcomes observed and reported by the educators who implemented safe approaches in their classrooms are also noteworthy. For one, Christine's example of how through the use of the SA tactics her struggling math students experienced improved confidence, increased participation, and improved performance in math is a positive testament to her experience. Rose also emphasized the benefits of cultivating a supportive environment where students feel empowered to learn together and explore new concepts. Sarah and Mary both noted enhanced student learning and completion of tasks when individual needs are attended to and stressors minimized. Grace's accounts underscore the transformative impact of safety on student engagement and well-being, leading to increased participation and focus in class activities. Overall, these narratives illustrate the

remarkable influence of safety approaches in promoting student success and well-being in the classroom.

In addition, school has been viewed primarily as a place where students acquire knowledge and academic skills, as in the traditional approach. However, in this study, teachers suggest that this narrow view of education is no longer sufficient. Instead, educators now recognize the importance of addressing broader aspects of student development beyond just academic learning.

This study supports findings that demonstrate the importance of a multi-dimensional approach to addressing child maltreatment in schools. Studies suggest fear in children reduces learning (Gershoff et al. 2019; Hineline & Rosales-Ruiz, 2013; Orgando & Pells, 2015; Talwar et al., 2011), and therefore such an approach that focuses on safe learning environments could make positive contributions to the success of students (Bailey, 2015; Siegel & Bryson, 2011; Wong & Wong, 2002). In alignment with such studies, when teachers are engaged with a holistic approach to teaching, particularly the Stoplight Approach, positive change can be possible. Thus, if schools adopt this approach as intended, there is potential for increased academic and social-emotional outcomes.

As the current study is an exploratory investigation of a limited sample, sweeping statements regarding intervention implementations cannot be made. Nevertheless, it can offer insight into best practices moving forward regarding intervention types and the intervention process when adopting philosophical and practical change in schools. The strength of this study lies in embracing insights such as: the comprehensive training structure, allowing ample time for change, fostering multi-level supports including

student buy-in, and working with catalytic teachers who are open and receptive to change.

Moreover, the SA, particularly in relation to this study, included components relevant to successful adoption and integration of interventions within educational settings as addressed by Klein & Knight (1996). Innovation implementation success and the SA are complimentary in numerous ways. (a) The implementation of the SA begins with comprehensive teacher training and ongoing professional development. Teachers need to understand the theoretical underpinnings of the approach, its practical application in the classroom, and how to effectively communicate its principles to students and parents. (b) The implementation of the SA fosters buy-in from various stakeholders, including teachers, administrators, students, parents, and community members. Each group plays a crucial role in supporting and sustaining the innovation. For example, teachers need to embrace the SA's principles, while students need to understand and engage with its concepts. (c) Adequate resources, including time, funding, and materials, were allocated to support the implementation process. This involved training workshops and the use of instructional materials. Notably, allocating funds for program sustainability could also be an area further explored in this context. (d) SA implementation efforts in this study included mechanisms for ongoing monitoring and evaluation to assess progress, identify challenges, and make necessary adjustments. This involved collecting and analyzing data on various aspects of implementation, such as fidelity of implementation, student outcomes, and stakeholder perceptions. (e) The SA was implemented in a way that is responsive to the unique needs and characteristics of the school community. The content of the training had been adapted specifically to the

demographic encompassed by Ugandan school teachers. Additionally, this could also involve adapting the approach to different grade levels, cultural contexts, and student populations. In summary, successful implementation of the Stoplight Approach, and other innovative interventions, requires careful planning, ongoing support, and adaptation to the specific context of each educational setting. By addressing key components of innovation implementation, schools can effectively integrate the SA into their teaching practices and promote positive outcomes for students.

Practical Application

The Stoplight Approach has several practical applications in educational settings specifically. For one, classroom management; the SA provides a framework for promoting a positive and safe classroom environment by emphasizing emotional and physical safety. Teachers can use the SA to establish clear expectations, reinforce positive behaviors, and address challenges in a constructive manner. Secondly, through the enhancement of SEL. The SA incorporates principles of social-emotional learning by helping students understand and regulate their emotions, develop empathy and self-awareness, and build positive relationships with peers and teachers. Teachers can integrate SA practices into SEL curriculum and activities to support students' social and emotional development, which in turn provides benefits to classroom management for the teacher. Thirdly, the SA offers strategies for resolving conflicts and addressing challenging behaviors in a non-punitive manner. Teachers can teach students conflict resolution skills, such as active listening, perspective-taking, and problem-solving, to promote peaceful interactions and positive outcomes. The SA recognizes the importance of emotional and physical well-being in academic success. Teachers can use SA practices

to create a supportive learning environment where students feel safe to take academic risks, ask for help when needed, and engage actively in their learning. Lastly, parent and community engagement can also be positively impacted. The SA encourages collaboration and communication between teachers, parents, and community members to support students' holistic development. Schools can involve parents in SA training sessions, provide resources for families to reinforce SA principles at home, and engage community partners in promoting a culture of safety and respect.

In addition to the obvious application for school-based decision makers, the findings of this study also identify a valuable window for those practicing in the counselling and psychology field. As a psychologist in training, I believe the study's findings provide valuable information and opportunities for practitioners to enhance their understanding and potentially develop interventions or strategies based on the principles and outcomes identified in the study. For example, the insights gained from the study about the effectiveness of the Stoplight Approach in promoting positive behavior and emotional regulation among students could inform counselors and psychologists about effective strategies for managing similar issues in their practice. Additionally, professionals in counseling and psychology may use the findings to develop interventions or therapeutic approaches that align with the principles of the Stoplight Approach. This could involve integrating concepts such as emotional regulation and conflict resolution into therapeutic techniques. The study's findings could also spark collaboration between educators and mental health professionals. By understanding the strategies that work well in school settings, counselors and psychologists can collaborate with educators to provide comprehensive support to students. Lastly, counselors and psychologists may also benefit

from the study's findings for their own professional development. They can gain insights into effective strategies for promoting positive behavior and emotional well-being, which they can incorporate into their practice and ongoing professional development activities.

Supporting and advocating for clients is a critical part of the practice. School counselors play a crucial role in safeguarding the well-being of students. Recognizing the detrimental effects of physical, emotional, and verbal abuse underscores the significance of minimizing such occurrences within educational settings. Therefore, for counselors working in schools, promoting safe school environments is essential. Implementing the Stoplight Approach, or other similar interventions that meet successful implementation criteria, can be viewed as a beneficial practice for counsellors to promote. Overall, the SA offers practical tools and strategies for promoting positive behavior, supporting social-emotional learning, and fostering a culture of safety and respect in schools. By integrating SA practices into various aspects of school life, educators,administrators and counsellors can create an inclusive and supportive environment where all students can thrive.

Limitations and Future Research

This study has some potential limitations. Initially, the study depended on teachers' perceptions of their experiences in school as teachers, although this perspective may offer only a limited understanding of events due to this singular perspective. However, for the focus of this research, I specifically targeted the viewpoints of teachers, given their pivotal role in implementing educational methods and influencing the classroom atmosphere. Understanding their viewpoints provides valuable insights into the effectiveness and challenges of adopting new methods such as the Stoplight Approach. Thus, I used the semi-structured interviews to represent the teachers' perceptions of their

beliefs and practices over time. This reliance on teachers' perceptions as the primary source of data could be considered a limitation because it offers a singular perspective that may not fully capture the complexity of events in the school environment. This approach may overlook other important perspectives from students, administrators, or parents. As a result, the findings may not provide a comprehensive understanding of the effectiveness and challenges associated with adopting new methods like the Stoplight Approach.

Additionally, the quantitative assessments were not carried out at the same time. The staggered timing could be viewed as a limitation because it introduces the potential for confounding variables or external factors that may influence the results. By not conducting the assessments simultaneously, it becomes more challenging to attribute any observed changes specifically to the implementation of the Stoplight Approach. Additionally, the temporal gap between assessments may introduce variability in participants' responses due to intervening events or experiences. However, this component was important to this study as the gap between the quantitative assessments ensured that any observed changes in the data were more likely to be attributable to the implementation of the Stoplight Approach rather than external factors or events that occurred concurrently. This quantitative data was also used to refine my ability to distinguish themes in a way that could assess the implementation of the Stoplight Approach for the students, parents, and teachers, deeming it advantageous to design the study in this way.

Alternate designs of studying how teachers’ beliefs and practices were modified following the intervention, such as observation of teachers in classrooms, would not

capture the same type of data found herein. Observing teachers in classrooms could provide valuable insights into their behaviors and practices, but it may not necessarily capture the depth of their beliefs and the underlying reasons for their actions. By focusing on teachers' perspectives through interviews and surveys, I could directly explore their thoughts, attitudes, and understanding of the intervention. This method allowed for a more comprehensive examination of how teachers' beliefs inform their practices and how they perceive the impact on the SA on their teaching. However, a future study could look at building on this study by conducting observations and interviews and an amalgamation of these results.

Another limitation includes the large drop-out rate across the three data collection points. As a study that occurred across the time of the pandemic, COVID-19 restrictions limited accessibility and seemingly contributed to this drop-out rate. Unfortunately, losing many participants between Survey A and C limited any potential significant findings. However, this dropout rate could also reflect a finding in and of itself. In communities with limited resources, travelling long distances, or virtual training using expensive equipment, could create roadblocks for implementation which should also be considered by future researchers.

Despite these limitations, the data yielded important findings that could be used to guide future intervention work and larger experimental investigations. Future research could address these issues by integrating other perspectives, such as the students. In addition, increased duration of analysis with additional data collection points could also aid in understanding the sustainability of the intervention. Secondly, as the Teacher Philosophy and Practices Survey instrument is limited to the school setting, future

research should be conducted to examine and validate the instrument in other contexts, such as foster care communities, refugee camps, and family homes. Finally, completing a similar study, with reduced reliance on technology as a medium, could yield increased participant numbers and address the angle of in-person training that was unable to be studied here.

Conclusion

In conclusion, this study sheds light on the transformative impact of the Stoplight Approach 101 on teachers' beliefs and classroom practices, particularly concerning corporal punishment. The findings, drawn from both quantitative and qualitative data, indicate a notable shift in teachers' attitudes and behaviors following the implementation of the Stoplight Approach. Notably, there was a significant decrease in the reported use of corporal punishment and other forms of child maltreatment, coupled with an increase in positive disciplinary strategies and a greater emphasis on emotional and physical safety in the classroom. Furthermore, the study highlights the importance of promoting positive teacher-student relationships and fostering a culture of accountability and mutual respect in the classroom. By eliminating punitive measures and authoritarian control, teachers were able to empower students, promote intrinsic motivation, and create a conducive learning environment where all students could thrive.

The implications of this study extend beyond the classroom, offering valuable insights for counselors, psychologists, and other practitioners in the mental health field. The Stoplight Approach presents practical strategies for promoting positive behavior, supporting social-emotional learning, and fostering a culture of safety and respect in schools. Additionally, the findings underscore the importance of collaboration between

educators and mental health professionals in providing comprehensive support to students.

However, this study is not without its limitations. Future research could explore the sustainability of the intervention over time, validate the survey instrument in diverse contexts, and investigate alternative methods of implementation that address barriers such as limited resources and technology access. By addressing these limitations and building upon the findings of this study, researchers can continue to advance our understanding of effective strategies for promoting positive disciplinary practices and supporting the holistic development of students in educational settings.

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APPENDIX A: Ethics Approval

University of Lethbridge

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Tuesday, 25 May 2021

Principal Investigator:	Katharine Bennett, Graduate Student, Faculty of Education
Faculty Co-supervisors:	Greg Ogilvie, Faculty of Education Thelma Gunn, Faculty of Education
Study Title:	From Red to Green: A mixed method study on perceptual and practical changes related to removing fear-based punishment in Ugandan schools
Action:	Approved
HPRC Protocol Number:	2021-056
Approval Date:	May 26, 2021
Term Date:	December 31, 2021

Dear Katharine,

Your human research ethics application titled "From Red to Green: A mixed method study on perceptual and practical changes related to removing fear-based punishment in Ugandan schools" has been reviewed and approved on behalf of the University of Lethbridge Human Participant Research Committee (HPRC) for the **approval period May 26, 2021 to December 31, 2021** and assigned Protocol #2021-056. The HPRC conducts its reviews in accord with University policy and the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (2018).

Please be advised that any changes to the protocol or the informed consent must be submitted for review and approval by the HPRC before they are implemented. A final report will be required and is due to the Office of Research Ethics on or before **January 15, 2022**. If the protocol needs to be reviewed in other jurisdictions, please be advised that this approval may be only the first step in the ethics approval process for this study. It is the researcher's responsibility to ascertain and obtain the necessary research approvals (e.g., research permit) for the jurisdiction in which data from human participants will be collected.

We wish you the best with your graduate research.

Sincerely,

Susan Entz, M.Sc., Ethics Officer
Office of Research Ethics
University of Lethbridge
4401 University Drive
Lethbridge, Alberta, Canada
T1K 3M4

University of Lethbridge

Office of Research Ethics
4401 University Drive
Lethbridge, Alberta, Canada
T1K 3M4
Phone: (403) 329-2747
Email: research.services@uleth.ca
FWA 00018802 IORG 0006429

Wednesday, 6 October 2021

Principal Investigator:	Katharine Bennett, Graduate Student, Faculty of Education
Faculty Co-supervisors:	Greg Ogilvie, Faculty of Education Thelma Gunn, Faculty of Education
Study Title:	From Red to Green: A mixed method study on perceptual and practical changes related to removing fear-based punishment in Ugandan schools
Action:	Approved
HPRC Protocol Number:	2021-056
Approval Date:	October 6, 2021
Term Date:	May 25, 2022

Dear Katharine,

Thanks for providing the update for your human research protocol titled "From Red to Green: A mixed method study on perceptual and practical changes related to removing fear-based punishment in Ugandan schools"; your request for an extension to the term date has been reviewed and approved on behalf of the University of Lethbridge Human Participant Research Committee (HPRC). The HPRC conducts its reviews in accord with University policy and the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (2018).

Please be advised that any changes to the protocol or the informed consent must be submitted for review and approval by the HPRC before they are implemented. A final report will be required and is due to the Office of Research Ethics on or before **May 25, 2022**. If the protocol needs to be reviewed in other jurisdictions, please be advised that this approval may be only the first step in the ethics approval process for this study. It is the researcher's responsibility to ascertain and obtain the necessary research approvals (e.g., research permit) for the jurisdiction in which data from human participants will be collected.

We wish you the best with your graduate research.

Sincerely,

Susan Entz, M.Sc., Ethics Officer
Office of Research Ethics
University of Lethbridge
4401 University Drive
Lethbridge, Alberta, Canada
T1K 3M4

APPENDIX B: SURVEY A (PRE INTERVENTION)

Teacher Beliefs and Practices Survey | Pre-Stoplight 101 Training

Letter of Consent: Participation in Study

Dear Teacher,

Thank you for agreeing to participate in this study!

My name is Katherine Bennett. I am a graduate student in the Faculty of Education at the University of Lethbridge in Alberta, Canada, under the supervision of Greg Ogilvie and Thelma Gunn. I am studying teacher training interventions that address corporal punishment. I am currently completing my master's thesis, and as a part of my research study I am inviting teachers to voluntarily participate in a study utilizing the *Stoplight 101* training program of *The Stoplight Approach* organization.

The study will include the completion of three surveys, an online training, and an optional interview across the span of approximately three months.
Each survey will take roughly 15-45 minutes to complete. Following the first survey, you will be required to complete the *Stoplight 101* online training. This is comprised of seven modules taking approximately one hour each to complete. A second survey will then be administered. Following completion of all training modules, this study will also require a willingness to integrate these new interventions into your teaching beliefs and classroom practices in the upcoming school term. Following the school term, you will again be approached to complete the last survey. Upon completion of all three surveys, you may also be invited to partake in an interview with myself, the primary researcher, to further reflect on the intervention and the implementation into the classroom, however, **the interview is not mandatory**. You can stop and retract your consent at any time until December 31, 2021, but after that point, your survey responses cannot be removed because they will have been combined with those of others. Findings will be made available to The Stoplight Approach organization and participants of this study in the form of an executive summary including no identifiable information.

Steps will be used in this study to protect your privacy. Here's how.

1. Your responses provided in this study will remain confidential. As your participation in this survey will require you to provide personal contact information, it is possible that your identity will be revealed to the primary researcher and the onsite Research Assistant (RA). Only I as the primary researcher will have access to the online survey responses and interviews, but, if technological complications occur, paper copies of the survey may be utilized, in which the RA will be present to ensure your responses are secured and protected. The RA and the primary researcher have signed a *legally binding non-disclosure agreement* relating to any personal information they may receive from you to ensure your confidentiality throughout the process of this study. In addition, your identity will be disguised through the use of a non-identifying participant ID. If you

provide any identifying information relating to yourself, other individuals or organizations (i.e., schools), pseudonyms will be used to protect these identities.

2. Your participation in this study will remain partially confidential. As your participation in this study and the corresponding training may occur in groups, your survey responses will be anonymous to others however your participation will be visible to the RA and any others completing the training at your location.

There are potential risks to your participation in this study. As the issue of physical violence is addressed in some questions in the surveys, emotional discomfort may surface when prompted to reflect on these incidents. As this may be a common experience within your context, it is not anticipated to be detrimental in your survey experience. However, during the **optional interview** occurring at the end of the study, if you choose to narrate personal stories when describing some challenges you have faced in this area, it may be emotionally difficult for you to reflect on. If this is to occur, interview termination or postponement will be extended. Help can be accessible through The Ugandan Emergency Helpline at +256 999 or Befriender Uganda at befriendersuganda.org and +800200450. Lastly, if information that you provide for data collection purposes specifies an identifiable person at risk for imminent and serious harm, then a report to the authorities will be made by the primary researcher.

As an incentive for your participation, prizes will be offered through random draw at every data collection point. The first two data collection points will provide an opportunity to win mobile money valued at $10 CAD following each survey. The last prize awarded will be to one participant in this study of an android phone/tablet valued at approximately $50 CAD. The prize draws will occur in public and to be eligible to win you must be present at the time of the draw. **If you are interested in being a part of this study, please contact me (katherine.bennett@uleth.ca or +1-709-770-292) or a local RA (tbd@example.com) with your preferred contact information (email, phone number, etc.,).** Please note that other teachers are being invited to participate therefore your decision does not affect my ability to conduct this study.

If you have questions about the study or are interested in the findings, you may contact me at katherine.bennett@uleth.ca or +1-709-770-2925. Findings will be made available to The Stoplight Approach organization and participants of this study in the form of an executive summary including no identifiable information. You may also contact the Office of Research Ethics at the University of Lethbridge at research.services@uleth.ca or +1-403-329-2747 if you have questions about your rights as a participant. This research has been reviewed for ethical acceptability and approved by the University of Lethbridge Human Participant Research Committee.

If you agree to the information above, please check the following box and provide your participant ID below:

○ I consent to participate in the aforementioned study.

○ I do not consent to participate in the aforementioned study. (

Provide your participant ID below:

_____

Letter of Consent: Teacher Survey
The Stoplight Approach Intervention – Online Stoplight 101 Course

Please read the following letter of information carefully before beginning the survey:

Principal Investigator: Katherine Bennett, Faculty of Education, University of Lethbridge, Canada

What is this survey about?
You are invited to participate in a confidential survey of teachers who have completed the *Stoplight 101* training program. This is a research study on the impact this training program has on your teaching philosophy and practices in your classrooms. Through your participation, I hope to better understand the influence, if any, that this program has on your teaching beliefs and practices. This invitation to participate is being extended to various teachers across Uganda who are participating in this online training program.

What is expected of you?
Following the reading of these instructions, you will be provided access to a survey hosted by Qualtrics (if desired, visit the following link to access their privacy policy: https://www.qualtrics.com/privacy-statement/). The survey contains a total of 24 questions and will take approximately 10-15 minutes to complete. You will be asked to respond to statements with how much you agree or disagree with them. An explanation following this response is optional. You may choose to skip any question you prefer not to answer. Please respond true to your own personal beliefs and experiences to the best of your ability.

What are the anticipated uses of the data collected?
The responses to the survey will be aggregated and presented in a master's thesis by the main researcher and reported to the Stoplight Approach (SA) in an executive summary. The aggregated findings may also be published in scholarly presentations and publications.

What are the risks and benefits of participating?
As the issue of physical violence is addressed in some questions in the surveys, and it is likely that emotional discomfort may surface when prompted to reflect on these incidents. As this may be a common experience within your context, it is not anticipated to be detrimental in your survey experience. However, if this is to occur, please discuss this with your RA or contact emergency help services at +256 999 or Befriender Uganda at befriendersuganda.org or +800200450. In addition, if the answers you provide in the open-ended portions of this survey specifies an identifiable person at risk for imminent and serious harm, then a report to the authorities will be made by the primary researcher. There are no direct benefits from participating in this study although you may gain some

insight into your own educational philosophies. As a result, you may be more conscious about the values you integrate into your classrooms when teaching.

How will your confidentiality and anonymity be protected?
Participation is voluntary and your responses will not be identified with you personally to anyone other than the primary researcher and RA. Aside from contact information, the survey collects no identifying information. To identify your survey, you will be provided a participant ID for which only you, the research assistant and primary researcher will have access. However, as with any survey, neither anonymity nor confidentiality can be completely guaranteed. The survey is being completed in a classroom setting likely with others. The responses to this survey will be kept on a secure password protected computer with restricted access. This data will be destroyed approximately five years following complete data collection, on December 31, 2026.

How can a participant withdraw?
Your participation is completely voluntary. You are free to remove yourself from the room at any time. By not submitting the survey, you may withdraw your participation without penalty or loss of benefits. If you choose to discontinue participation after you have submitted your responses to this survey, contact the primary researcher at the addresses below to inform her of this decision and to have your responses removed. You will have until December 31st, 2021 to do so.

Who is conducting this research?
For more information on this study or for a summary of the findings (available after December 2021), you may contact me at katherine.bennett@uleth.ca or +1-709-770-2925. Questions regarding your rights as a participant in this research may be addressed to the Office of Research Ethics, University of Lethbridge (Phone: +1-403-329-2747 or Email: research.services@uleth.ca).

This research study has been reviewed for ethical acceptability and approved by the University of Lethbridge Human Participant Research Committee.

You must be 18 years or older to participate in this survey.

As a reminder, know that other teachers have been invited to participate, and therefore choosing to not participate will not compromise the success of this project.

If you wish to participate in the survey, please click the box below and proceed to the questions on the following page. Thank you in advance for your participation.

I have read and I understand the provided information and have had the opportunity to ask questions. I agree to take part in this study.

○ I agree

○ I do not agree

Q60 **Teacher Beliefs and Practices Survey Pre-Stoplight 101 Training** *Before you begin, please answer the questions below by circling the correct answer or by filling in the space provided.*

What is your gender?

○ Male

○ Female

○ Non-binary / third gender

○ Prefer not to say

What is your age (in years)?

○ 18-20

○ 21 - 25

○ 26 - 30

○ 31 - 35

○ 36 - 40

○ 41 - 45

○ 46 - 50

○ 50 or older

How many years have you been teaching?

○ Less than one year

- ○ 1 - 5 years
- ○ 6 - 10 years
- ○ 11 - 15 years
- ○ 16 - 20 years
- ○ More than 20 years

On average, how many students are in your classroom?

- ○ Less than 10
- ○ 11 - 20
- ○ 21 - 30
- ○ 31 - 40
- ○ 41 - 50
- ○ More than 50

How do you learn about the Stoplight Approach?

_____

Have you had previous exposure to The Stoplight Approach before?

- ○ Yes
- ○ No

When? (Day/Month/Year)

_____

How?

_____

Do other teachers at your school know about The Stoplight Approach?

○ Yes

○ No

Have your colleagues implemented The Stoplight Approach at the school?

○ Yes

○ No

Do you know other people who use The Stoplight Approach?

○ Yes

○ No

If yes, how?

_____

Why have you decided to take this training?

_____

Instructions

- The following questionnaire asks how you approach teaching in the classroom.
- Answer all questions if possible, and if you are unsure about which response to give to a question, please choose the one that appears most appropriate. However, if you prefer not to answer a question, you may skip and proceed to answer the next.
- Read each question, assess your experiences, and circle the number on the scale for each question that gives the best answer for you.
    - If you would like to elaborate on your response, please use the "EXPLAIN" space below each question.

- Thank you!

Classroom Environment

Read each question, assess your experiences, and tick the bubble of the response that gives the best answer for you. Use the blank space below each question to explain your answer if desired.

	Strongly disagree	Somewhat disagree	**Neither agree nor disagree**	Somewhat agree	**Strongly agree**
Fear of punishment is an effective way to ensure excellent academic performance from students.	○	○	○	○	○
The use of pressure through time constraints and threats is necessary for adaptive learning to occur.	○	○	○	○	○
Classrooms should be a place of enjoyment for learning.	○	○	○	○	○
Constant and carefully monitored supervision of students by teachers is required for children to be safe at school.	○	○	○	○	○
Providing breaks (i.e., recess, snacks, etc.) for students	○	○	○	○	○

several times a day is important for learning.					
Even when a student is at potential risk for abuse at school (e.g., emotional, physical, sexual, etc.) I always follow the safety protocols put in place.					
Just as I provide feedback to my students, I also encourage feedback from them about their level of understanding of the course content, expression of their needs, how they are feeling, etc.					
Memorization is the most effective way to learn the content that I teach in the classroom.					
I encourage student participation in my classroom (e.g., feeling					

free to ask questions, providing them opportunity for group work, etc.).

Behaviour Management

Read each question, assess your experiences, and tick the bubble of the response that gives the best answer for you. Use the blank space below each question to explain your answer if desired.

	Strongly disagree	Somewhat disagree	**Neither agree nor disagree**	Somewhat agree	**Strongly agree**
When managing disobedient students, I most frequently use physical punishment (i.e., hitting, caning, etc.) over other methods of discipline.	○	○	○	○	○
I am aware of other classroom management approaches and strategies (other than those discussed in the Stoplight Approach) that do not include verbal	○	○	○	○	○

threats or physically punishing students.					
I believe verbal and physical aggression between students should not be tolerated.					
I help my students manage their emotions without using fear tactics (e.g., threats, physical punishment, etc.).					
I use violence and aggression (i.e., physical, verbal, etc.) to resolve teacher-student or student-student disagreements while in school.					
Violence (i.e., physical, verbal, etc.) is the most effective method of discipline to stop bad behaviour at school.					

I understand that circumstances at home may be affecting a student's performance in class.	○	○	○	○	○

Relationship Building

Read each question, assess your experiences, and tick the bubble of the response that gives the best answer for you. Use the blank space below each question to explain your answer if desired.

	Strongly disagree	Somewhat disagree	**Neither agree nor disagree**	Somewhat agree	**Strongly agree**
When needed, I encourage students to talk about how they are feeling while in class or on a one-to-one basis.	○	○	○	○	○
I understand that each of my students have unique strengths and weaknesses (i.e., academic, personal, physical, social).	○	○	○	○	○
My students should	○	○	○	○	○

always feel safe with me, physically and emotionally.					
Protecting a student's self-worth is as important as feeling respected as their teacher.					
Academic success is the most important aspect of schooling.					
Just as my students listen to me, I also listen to them when needed.					
The best teachers have the most obedient students.					
To the best of my ability, when I assess my students, I consider their individual strengths and weaknesses (i.e., academic, personal, physical).					

APPENDIX C: SURVEY B (POST TRAINING)

Teacher Beliefs and Practices Survey | Post-Stoplight 101 Training

Letter of Consent: Teacher Survey
The Stoplight Approach Intervention – Online Stoplight 101 Course

Please read the following letter of information carefully before beginning the survey:

Principal Investigator: Katherine Bennett, Faculty of Education, University of Lethbridge, Canada

What is this survey about?
You are invited to participate in a confidential survey of teachers who have completed the *Stoplight 101* training program. This is a research study on the impact this training program has on your teaching philosophy and practices in your classrooms. Through your participation, I hope to better understand the influence, if any, that this program has on your teaching beliefs and practices. This invitation to participate is being extended to various teachers across Uganda who are participating in this online training program.

What is expected of you?
Following the reading of these instructions, you will be provided access to a survey hosted by Qualtrics (if desired, visit the following link to access their privacy policy: https://www.qualtrics.com/privacy-statement/). The survey contains a total of 24 questions and will take approximately 10-15 minutes to complete. You will be asked to respond to statements with how much you agree or disagree with them. An explanation following this response is optional. You may choose to skip any question you prefer not to answer. Please respond true to your own personal beliefs and experiences to the best of your ability.

What are the anticipated uses of the data collected?
The responses to the survey will be aggregated and presented in a master's thesis by the main researcher and reported to the Stoplight Approach (SA) in an executive summary. The aggregated findings may also be published in scholarly presentations and publications.

What are the risks and benefits of participating?
As the issue of physical violence is addressed in some questions in the surveys, and it is likely that emotional discomfort may surface when prompted to reflect on these incidents. As this may be a common experience within your context, it is not anticipated to be detrimental in your survey experience. However, if this is to occur, please discuss this with your RA or contact emergency help services at +256 999 or Befriender Uganda at befriendersuganda.org or +800200450. In addition, if the answers you provide in the open-ended portions of this survey specifies an identifiable person at risk for imminent and serious harm, then a report to the authorities will be made by the primary researcher. There are no direct benefits from participating in this study although you may gain some

insight into your own educational philosophies. As a result, you may be more conscious about the values you integrate into your classrooms when teaching.

How will your confidentiality and anonymity be protected?
Participation is voluntary and your responses will not be identified with you personally to anyone other than the primary researcher and RA. Aside from contact information, the survey collects no identifying information. To identify your survey, you will be provided a participant ID for which only you, the research assistant and primary researcher will have access. However, as with any survey, neither anonymity nor confidentiality can be completely guaranteed. The survey is being completed in a classroom setting likely with others. The responses to this survey will be kept on a secure password protected computer with restricted access. This data will be destroyed approximately five years following complete data collection, on December 31, 2026.

How can a participant withdraw?
Your participation is completely voluntary. You are free to remove yourself from the room at any time. By not submitting the survey, you may withdraw your participation without penalty or loss of benefits. If you choose to discontinue participation after you have submitted your responses to this survey, contact the primary researcher at the addresses below to inform her of this decision and to have your responses removed. You will have until December 31st, 2021 to do so.

Who is conducting this research?
For more information on this study or for a summary of the findings (available after December 2021), you may contact me at katherine.bennett@uleth.ca or +1-709-770-2925. Questions regarding your rights as a participant in this research may be addressed to the Office of Research Ethics, University of Lethbridge (Phone: +1-403-329-2747 or Email: research.services@uleth.ca).

This research study has been reviewed for ethical acceptability and approved by the University of Lethbridge Human Participant Research Committee.

You must be 18 years or older to participate in this survey.

As a reminder, know that other teachers have been invited to participate, and therefore choosing to not participate will not compromise the success of this project.

If you wish to participate in the survey, please click the box below and proceed to the questions on the following page. Thank you in advance for your participation.

I have read and I understand the provided information and have had the opportunity to ask questions. I agree to take part in this study.

○ I agree

○ I do not agree

Provide your participant ID below:

_____

Teacher Beliefs and Practices Survey
Post-Stoplight 101 Training

Before you begin, please answer the following questions by circling Yes OR No and elaborating where applicable.

Do you have a teaching position for this upcoming school semester?

○ Yes

○ No

Are you willing to attempt incorporating The Stoplight Approach in your classroom? Why?

○ Yes _____

○ No _____

Please indicate if you scored 70% or above on all the quizzes involved in the Stoplight 101 training modules. If unsure, you may use the space provided to explain.

○ Yes

○ Unsure _____

○ No

End of Block: Block 2

Start of Block: Default Question Block

Instructions

- The following questionnaire asks how you approach teaching in the classroom.

- Answer all questions if possible, and if you are unsure about which response to give to a question, please choose the one that appears most appropriate. However, if you prefer not to answer a question, you may skip and proceed to answer the next.
- **Part 1:** Read each question, assess your experiences, and circle the number on the scale for each question that gives the best answer for you. If you would like to elaborate on your response, please use the "EXPLAIN" space below each question.
- **Part 2:** For questions 1-3, read each question, assess your experiences, and circle the number on the scale for each question that gives the best answer for you. If you would like to elaborate on your response, please use the "EXPLAIN" space below each question. For questions 4 & 5, read each question and provide an answer that best reflects your personal thoughts and experiences.
- Thank you!

Part 1

Classroom Environment

Read each question, assess your experiences, and tick the bubble of the response that gives the best answer for you. Use the blank space below each question to explain your answer if desired.

	Strongly disagree	Somewhat disagree	**Neither agree nor disagree**	Somewhat agree	**Strongly agree**
Fear of punishment is an effective way to ensure excellent academic performance from students.	○	○	○	○	○
The use of pressure through time constraints and threats is necessary for adaptive learning to occur.	○	○	○	○	○

Classrooms should be a place of enjoyment for learning.	○	○	○	○	○
Constant and carefully monitored supervision of students by teachers is required for children to be safe at school.	○	○	○	○	○
Providing breaks (i.e., recess, snacks, etc.) for students several times a day is important for learning.	○	○	○	○	○
Even when a student is at potential risk for abuse at school (e.g., emotional, physical, sexual, etc.) I always follow the safety protocols put in place.	○	○	○	○	○
Just as I provide feedback to my students, I also encourage feedback from them about their level of understanding	○	○	○	○	○

of the course content, expression of their needs, how they are feeling, etc.					
Memorization is the most effective way to learn the content that I teach in the classroom.	○	○	○	○	○
I encourage student participation in my classroom (e.g., feeling free to ask questions, providing them opportunity for group work, etc.).	○	○	○	○	○

Behaviour Management

Read each question, assess your experiences, and tick the bubble of the response that gives the best answer for you. Use the blank space below each question to explain your answer if desired.

	Strongly disagree	Somewhat disagree	**Neither agree nor disagree**	Somewhat agree	**Strongly agree**
When managing disobedient students, I most frequently use physical	○	○	○	○	○

punishment (i.e., hitting, caning, etc.) over other methods of discipline.					
I am aware of other classroom management approaches and strategies (other than those discussed in the Stoplight Approach) that do not include verbal threats or physically punishing students.					
I believe verbal and physical aggression between students should not be tolerated.					
I help my students manage their emotions without using fear tactics (e.g., threats, physical punishment, etc.).					
I use violence and aggression (i.e., physical, verbal, etc.) to					

resolve teacher-student or student-student disagreements while in school.					
Violence (i.e., physical, verbal, etc.) is the most effective method of discipline to stop bad behaviour at school.					
I understand that circumstances at home may be affecting a student's performance in class.					

Relationship Building

Read each question, assess your experiences, and tick the bubble of the response that gives the best answer for you. Use the blank space below each question to explain your answer if desired.

	Strongly disagree	Somewhat disagree	**Neither agree nor disagree**	Somewhat agree	**Strongly agree**
When needed, I encourage students to talk about how they are					

feeling while in class or on a one-to-one basis.					
I understand that each of my students have unique strengths and weaknesses (i.e., academic, personal, physical, social).	○	○	○	○	○
My students should always feel safe with me, physically and emotionally.	○	○	○	○	○
Protecting a student's self-worth is as important as feeling respected as their teacher.	○	○	○	○	○
Academic success is the most important aspect of schooling.	○	○	○	○	○
Just as my students listen to me, I also listen to them when needed.	○	○	○	○	○
The best teachers have the most obedient students.	○	○	○	○	○

To the best of my ability, when I assess my students, I consider their individual strengths and weaknesses (i.e., academic, personal, physical).	○	○	○	○	○

Part 2

Read each question, assess your experiences, and tick the bubble of the response that gives the best answer for you. ***Use the blank space below each question to explain your answer if desired.***

The Stoplight 101 training course was effective because...

	Strongly disagree	Somewhat disagree	**Neither agree nor disagree**	Somewhat agree	**Strongly agree**
The length of the training was appropriate for me to learn the most salient points.	○	○	○	○	○
The virtual presentation mode of delivery was appropriate for my learning needs.	○	○	○	○	○
The content of the	○	○	○	○	○

training course was well explained.					
I have new knowledge, skills, and strategies that I can implement into my classroom.	○	○	○	○	○

Below are a number of topics discussed during *The Stoplight Approach* training. Select the most appropriate response outlining **whether you have learned enough about the topic** to make an impact on your future instructional practices.

	Strongly disagree	Somewhat disagree	**Neither agree nor disagree**	Somewhat agree	**Strongly agree**
Understanding your Stoplight, including resiliency and how it is developed.	○	○	○	○	○
Brain biology and how the brain functions (i.e., brain stem, limbic system, neocortex).	○	○	○	○	○
The three brain states, including labelling the brain with Stoplight colours and their meanings (Red, Yellow, Green).	○	○	○	○	○
The heart of Stoplight, including the benefits of valuing relationship building with students (EQ and IQ).	○	○	○	○	○
Trauma, triggers, and how they affect us.	○	○	○	○	○

Recognizing brain states, including learning how to identify emotions in yourself and others (Red, Yellow, Green).	○	○	○	○	○
Managing brain states, including learning what you can do when a brain state is activated.	○	○	○	○	○
Understanding empathy and connection.	○	○	○	○	○
Discipline and punishment, including fear-based approaches versus relationship-based approaches.	○	○	○	○	○
Developing moral identity through intentional choices.	○	○	○	○	○
The ABC's of Stoplight, including a how-to guide for developing healthy relationships.	○	○	○	○	○

As discussed in the training, below are a number of practical ways for teachers to build relationships with their students. Select the most appropriate response outlining how important these concepts are to incorporate in your future instructional practices.

	Strongly disagree	Somewhat disagree	**Neither agree nor disagree**	Somewhat agree	**Strongly agree**
Labelling and understanding the emotions of my students (i.e., understanding when my students are in Red, Yellow or Green).	○	○	○	○	○
Connect with my students through acceptance and validation of their needs (i.e., acknowledging when my students are in Red, Yellow or Green).	○	○	○	○	○
Labelling and understanding my emotions (Red, Yellow, Green).	○	○	○	○	○
Self-reflection on my own weaknesses and triggers.	○	○	○	○	○
Engaging in my own self-care.	○	○	○	○	○
Removing current classroom management strategies that evoke fear in my students.	○	○	○	○	○

Are there any additional topics you would have liked addressed in this training?

○ Yes _____

○ No _____

Explain one way you believe you can implement this approach in your classroom.
_____

APPENDIX D: SURVEY C (POST INTERVENTION)

Teacher Beliefs And Practices Survey | 3 Month Post-Stoplight 101 Training

Letter of Consent: Teacher Survey
The Stoplight Approach Intervention – Online Stoplight 101 Course

Please read the following letter of information carefully before beginning the survey:

Principal Investigator: Katherine Bennett, Faculty of Education, University of Lethbridge, Canada

What is this survey about?
You are invited to participate in a confidential survey of teachers who have completed the *Stoplight 101* training program. This is a research study on the impact this training program has on your teaching philosophy and practices in your classrooms. Through your participation, I hope to better understand the influence, if any, that this program has on your teaching beliefs and practices. This invitation to participate is being extended to various teachers across Uganda who are participating in this online training program.

What is expected of you?
Following the reading of these instructions, you will be provided access to a survey hosted by Qualtrics (if desired, visit the following link to access their privacy policy: https://www.qualtrics.com/privacy-statement/). The survey contains a total of 24 questions and will take approximately 10-15 minutes to complete. You will be asked to respond to statements with how much you agree or disagree with them. An explanation following this response is optional. You may choose to skip any question you prefer not to answer. Please respond true to your own personal beliefs and experiences to the best of your ability.

What are the anticipated uses of the data collected?
The responses to the survey will be aggregated and presented in a master's thesis by the main researcher and reported to the Stoplight Approach (SA) in an executive summary. The aggregated findings may also be published in scholarly presentations and publications.

What are the risks and benefits of participating?
As the issue of physical violence is addressed in some questions in the surveys, and it is likely that emotional discomfort may surface when prompted to reflect on these incidents. As this may be a common experience within your context, it is not anticipated to be detrimental in your survey experience. However, if this is to occur, please discuss this with your RA or contact emergency help services at +256 999 or Befriender Uganda at befriendersuganda.org or +800200450. In addition, if the answers you provide in the open-ended portions of this survey specifies an identifiable person at risk for imminent and serious harm, then a report to the authorities will be made by the primary researcher. There are no direct benefits from participating in this study although you may gain some

insight into your own educational philosophies. As a result, you may be more conscious about the values you integrate into your classrooms when teaching.

How will your confidentiality and anonymity be protected?
Participation is voluntary and your responses will not be identified with you personally to anyone other than the primary researcher and RA. Aside from contact information, the survey collects no identifying information. To identify your survey, you will be provided a participant ID for which only you, the research assistant and primary researcher will have access. However, as with any survey, neither anonymity nor confidentiality can be completely guaranteed. The survey is being completed in a classroom setting likely with others. The responses to this survey will be kept on a secure password protected computer with restricted access. This data will be destroyed approximately five years following complete data collection, on December 31, 2026.

How can a participant withdraw?
Your participation is completely voluntary. You are free to remove yourself from the room at any time. By not submitting the survey, you may withdraw your participation without penalty or loss of benefits. If you choose to discontinue participation after you have submitted your responses to this survey, contact the primary researcher at the addresses below to inform her of this decision and to have your responses removed. You will have until December 31st, 2021 to do so.

Who is conducting this research?
For more information on this study or for a summary of the findings (available after December 2021), you may contact me at katherine.bennett@uleth.ca or +1-709-770-2925. Questions regarding your rights as a participant in this research may be addressed to the Office of Research Ethics, University of Lethbridge (Phone: +1-403-329-2747 or Email: research.services@uleth.ca).

This research study has been reviewed for ethical acceptability and approved by the University of Lethbridge Human Participant Research Committee.

You must be 18 years or older to participate in this survey.

As a reminder, know that other teachers have been invited to participate, and therefore choosing to not participate will not compromise the success of this project.

If you wish to participate in the survey, please click the box below and proceed to the questions on the following page. Thank you in advance for your participation.

I have read and I understand the provided information and have had the opportunity to ask questions. I agree to take part in this study.

○ I agree

○ I do not agree

Provide your participant ID below: _

_____

Teacher Beliefs and Practices Survey
Post-Stoplight 101 Training

Before you begin, please answer the questions below by circling yes or no and by filling in the space provided.

Were you in a teaching position for the last school semester?

○ Yes

○ No

Did you attempt to implement The Stoplight Approach in your classroom?

○ Yes

○ No

Are you willing to be a part of a follow up interview regarding your personal experience implementing the Stoplight Approach in your classroom? This will require you to self-identify for contact purposes.

○ Yes

○ No

Please provide personal contact information below (Email/phone number):
_____

Instructions

- The following questionnaire asks how you approach teaching in the classroom.
- Answer all questions if possible, and if you are unsure about which response to give to a question, please choose the one that appears most appropriate. However, if you prefer not to answer a question, you may skip and proceed to answer the next.
- **Part 1 & 2:** Read each question, assess your experiences, and circle the number on the scale for each question that gives the best answer for you.
    - If you would like to elaborate on your response, please use the "EXPLAIN" space below each question.

- **Part 3:** Read each question and provide an answer that best reflects your personal thoughts and experiences.
- Thank you!

Part 1

Classroom Environment

Read each question, assess your experiences, and tick the bubble of the response that gives the best answer for you. Use the blank space below each question to explain your answer if desired.

	Strongly disagree	Somewhat disagree	**Neither agree nor disagree**	Somewhat agree	**Strongly agree**
Fear of punishment is an effective way to ensure excellent academic performance from students.	○	○	○	○	○
The use of pressure through time constraints and threats is necessary for adaptive learning to occur.	○	○	○	○	○
Classrooms should be a place of enjoyment for learning.	○	○	○	○	○
Constant and carefully monitored supervision of students by teachers is required for	○	○	○	○	○

children to be safe at school.					
Providing breaks (i.e., recess, snacks, etc.) for students several times a day is important for learning.					
Even when a student is at potential risk for abuse at school (e.g., emotional, physical, sexual, etc.) I always follow the safety protocols put in place.					
Just as I provide feedback to my students, I also encourage feedback from them about their level of understanding of the course content, expression of their needs, how they are feeling, etc.					
Memorization is the most effective way to learn the content that I					

teach in the classroom.					
I encourage student participation in my classroom (e.g., feeling free to ask questions, providing them opportunity for group work, etc.).	○	○	○	○	○

Behaviour Management

Read each question, assess your experiences, and tick the bubble of the response that gives the best answer for you. Use the blank space below each question to explain your answer if desired.

	Strongly disagree	Somewhat disagree	**Neither agree nor disagree**	Somewhat agree	**Strongly agree**
When managing disobedient students, I most frequently use physical punishment (i.e., hitting, caning, etc.) over other methods of discipline.	○	○	○	○	○
I am aware of other classroom management approaches	○	○	○	○	○

and strategies (other than those discussed in the Stoplight Approach) that do not include verbal threats or physically punishing students.					
I believe verbal and physical aggression between students should not be tolerated.	○	○	○	○	○
I help my students manage their emotions without using fear tactics (e.g., threats, physical punishment, etc.).	○	○	○	○	○
I use violence and aggression (i.e., physical, verbal, etc.) to resolve teacher-student or student-student disagreements while in school.	○	○	○	○	○
Violence (i.e., physical, verbal, etc.) is	○	○	○	○	○

the most effective method of discipline to stop bad behaviour at school.					
I understand that circumstances at home may be affecting a student's performance in class.	○	○	○	○	○
Just as I provide feedback to my students, I also encourage feedback from them about their level of understanding of the course content, expression of their needs, how they are feeling, etc.	○	○	○	○	○
Memorization is the most effective way to learn the content that I teach in the classroom.	○	○	○	○	○

Relationship Building

Read each question, assess your experiences, and tick the bubble of the response that gives the best answer for you. Use the blank space below each question to explain your

answer if desired.

	Strongly disagree	Somewhat disagree	**Neither agree nor disagree**	Somewhat agree	**Strongly agree**
When needed, I encourage students to talk about how they are feeling while in class or on a one-to-one basis.	○	○	○	○	○
I understand that each of my students have unique strengths and weaknesses (i.e., academic, personal, physical, social).	○	○	○	○	○
My students should always feel safe with me, physically and emotionally.	○	○	○	○	○
Protecting a student's self-worth is as important as feeling respected as their teacher.	○	○	○	○	○
Academic success is the most important	○	○	○	○	○

aspect of schooling.					
Just as my students listen to me, I also listen to them when needed.	○	○	○	○	○
The best teachers have the most obedient students.	○	○	○	○	○
To the best of my ability, when I assess my students, I consider their individual strengths and weaknesses (i.e., academic, personal, physical).	○	○	○	○	○

Part 2

Read each question, assess your experiences, and tick the bubble of the response that gives the best answer for you. ***Use the blank space below each question to explain your answer if desired.***

The Stoplight 101 training course was effective because...

	Strongly disagree	Somewhat disagree	**Neither agree nor disagree**	Somewhat agree	**Strongly agree**
The length of the training was appropriate for me to learn the most salient points.	○	○	○	○	○
The virtual presentation mode of delivery was appropriate for my learning needs.	○	○	○	○	○
The content of the training course was well explained.	○	○	○	○	○
I have new knowledge, skills, and strategies that I can implement into my classroom.	○	○	○	○	○

Below are a number of topics discussed during *The Stoplight Approach* training. Select the most appropriate response outlining **whether you had learned enough about the topic** to make an impact on your instructional practices.

	Strongly disagree	Somewhat disagree	**Neither agree nor disagree**	Somewhat agree	**Strongly agree**
Understanding your Stoplight, including resiliency and how it is developed.	○	○	○	○	○
Brain biology and how the brain functions (i.e., brain stem, limbic system, neocortex).	○	○	○	○	○
The three brain states, including labelling the brain with Stoplight colours and their meanings (Red, Yellow, Green).	○	○	○	○	○
The heart of Stoplight, including the benefits of valuing relationship building with students (EQ and IQ).	○	○	○	○	○
Trauma, triggers, and how they affect us.	○	○	○	○	○
Recognizing brain states,	○	○	○	○	○

including learning how to identify emotions in yourself and others (Red, Yellow, Green).					
Managing brain states, including learning what you can do when a brain state is activated.	○	○	○	○	○
Understanding empathy and connection.	○	○	○	○	○
Discipline and punishment, including fear-based approaches versus relationship-based approaches.	○	○	○	○	○
Developing moral identity through intentional choices.	○	○	○	○	○
The ABC's of Stoplight, including a how-to guide for developing healthy relationships.	○	○	○	○	○

As discussed in the training, below are a number of practical ways for teachers to build relationships with their students. Select the most appropriate response outlining how *important* these concepts were to incorporate into your instructional practices.

	Strongly disagree	Somewhat disagree	**Neither agree nor disagree**	Somewhat agree	**Strongly agree**
Labelling and understanding the emotions of my students (i.e., understanding when my students are in Red, Yellow or Green).	○	○	○	○	○
Connect with my students through acceptance and validation of their needs (i.e., acknowledging when my students are in Red, Yellow or Green).	○	○	○	○	○
Labelling and understanding my emotions (Red, Yellow, Green).	○	○	○	○	○
Self-reflection on my own weaknesses and triggers.	○	○	○	○	○
Engaging in my own self-care.	○	○	○	○	○
Removing current classroom management strategies that	○	○	○	○	○

evoke fear in
my students.

Part 3

Read each question, assess your experiences, and tick the bubble of the response that gives the best answer for you. ***Use the blank space below each question to explain your answer if desired.***

Explain the different ways the Stoplight Approach training has affected your teaching practices. Be as specific as possible in outlining how your practices have changed as a result of the training program.

_____

Explain how the implementation of the Stoplight Approach (as outlined in your response to question one) has impacted your classroom (e.g., improved relationships, enhanced student performance, less conflicts). Be as specific as possible in outlining the impact your altered teaching practices have had on students, the classroom environment, and you.

_____

Did you encounter barriers to the implementation of principles from the Stoplight Approach at your school? If so, outline what those barriers were and how they impacted you.

_____

How do you think you could be better supported in implementing the Stoplight Approach into your teaching practices?

_____

Is there any other feedback you would like to provide regarding the Stoplight training process?

_____

APPENDIX E: INTERVIEW GUIDE

The following is the interview guide to use with Teachers who are participants in the Stoplight Approach school study in 2021. The guide includes an introduction with verbal informed consent, a set of questions, and closing comments. The interviewer is to read the sections in the far-right hand column. The information in the left-hand column is provided for context and interviewer support.

Interviewers: Primary Researcher, Katherine Bennett

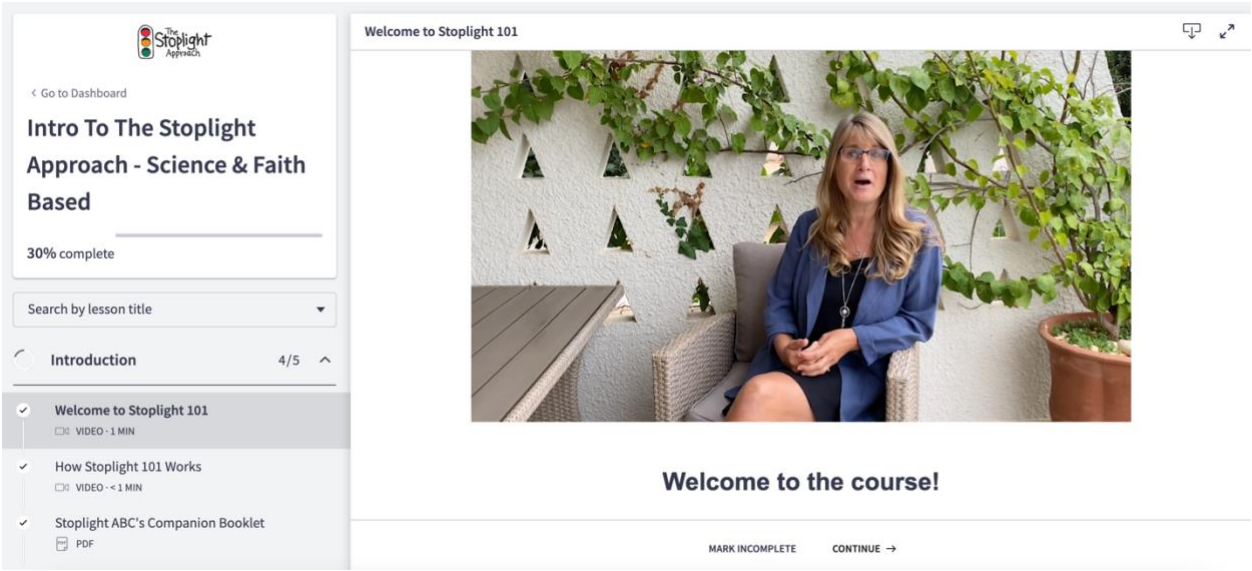
Introduction: o Thank you o Your name o Purpose o Confidentiality o Duration o Recording o Informed Consent o State pseudonym	I want to thank you for taking the time to meet with me today. My name is *Researcher (KB)* and I would like to talk to you about your experiences related to the Stoplight Approach. The interview should be 30 – 60 minutes. I will be audio recording the interview because I don't want to miss any of your comments. Because we're on tape, please be sure to speak up so that we don't miss your comments and try to avoid using identifying information like your name, your students' names, the names of schools, etc. All responses will be kept confidential. This means that your interview responses will only be shared with research team members and we will ensure that any information we include in our report does not identify you as the respondent. That is why we use your pseudonym. Remember, you don't have to talk about anything you don't want to and you may end the interview at any time. Are there any questions about what I have just explained? Are you willing to participate in this interview? Can you state your pseudonym? Thank you. Now we can get started with the questions.

Questions: o 5 questions o open ended o use probes Non-verbal probes: o eye contact o nodding o smile o facial expression o pause Verbal probes: o Okay, yes, I see, mmm o Can you tell me more? o ***Can you provide an example?*** o What was that like for you?	1. This first set of questions will focus on your overall personal experience and understanding of the Stoplight Approach. a) Discuss your personal story with The Stoplight Approach b) In your own words, could you describe The Stoplight Approach? c) Why did you choose to use The Stoplight Approach in your classroom? d) What do you hope you can achieve through The Stoplight Approach? e) Where in your daily school life is The Stoplight Approach applied? Please give examples. 2. This next set of questions is going to focus on the process of implementing The Stoplight Approach into your school. a) How did you implement The Stoplight Approach? b) How was the initial reaction to The Stoplight Approach? Has this reaction changed with time? c) Were there any opportunities/challenges during implementation? d) Where in the daily school environment do you see the Stoplight Approach being applied? Please give examples. e) Do you involve parents in The Stoplight Approach? If so, how? 3. The next set of questions is going to focus on the transformations that have occurred since implementation of the Stoplight Approach in your school. a) What are some of the changes that you see have occurred during the Stoplight approach in relation to: i. Teacher-student relationships ii. Teacher and student attitudes towards school

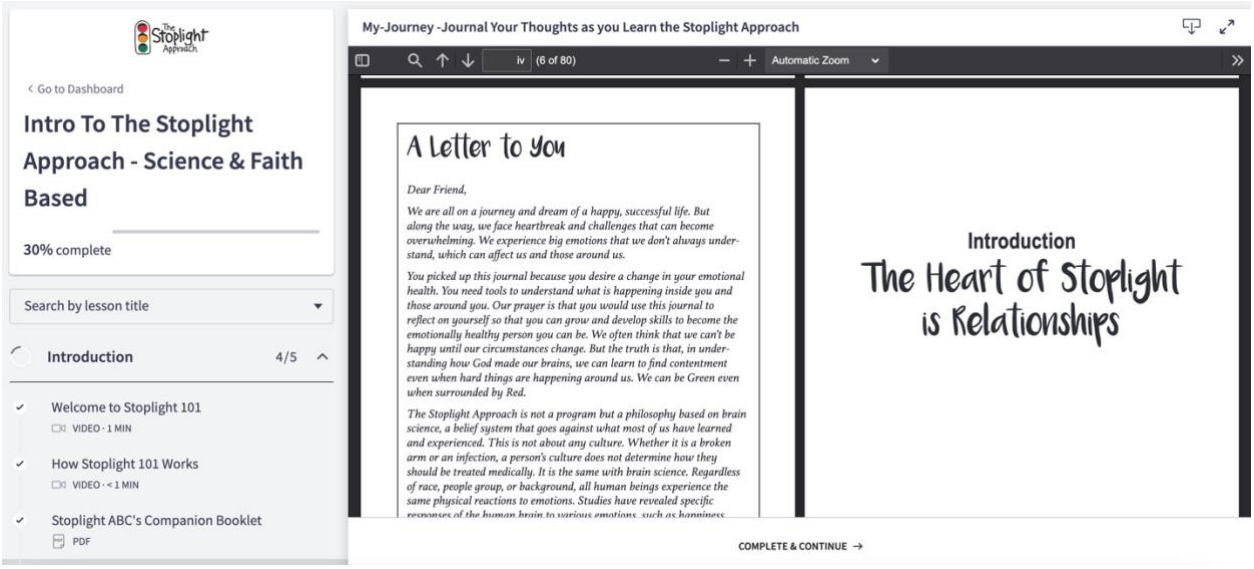
	iii. Classroom management iv. Student performance v. School environment b) What is the best part about using the Stoplight in your classroom? c) What is the most difficult part about utilizing the Stoplight School? 4. Below are a number of topics discussed in The Stoplight Approach training. Discuss how each of these topics have been *impactful* on your classroom instruction a) Understanding your Stoplight; resiliency and how it is developed b) Brain biology and how the brain functions (i.e., brain stem, limbic system, neocortex) c) The three brain states; labelling the brain with Stoplight colours and their meanings (Red, Yellow, Green) d) The heart of Stoplight; the benefits of valuing relationships over education (EQ over IQ) e) Trauma, triggers, and how they affect us f) Recognizing brain states; learning how to identify emotions in yourself and others (Red, Yellow, Green) g) Managing brain states; learning what you can do when a brain state is activated h) Understanding empathy and connection i) Discipline and punishment; fear-based approaches versus relationship-based approaches j) Developing moral identity through intentional choices k) The ABC's of Stoplight; a how-to guide for developing healthy relationships 5. Some teacher concerns regarding implementation of the SA approach have been highlighted. Discuss whether these also relate to you, and how.

	a) Not seeing an immediate change in the student's unwanted behaviour b) Feeling out of control of my classroom c) Feeling disrespected by students d) Not knowing any alternatives to use for behaviour management
Closing: o additional comments o thank you	Is there anything more you would like to add? This concludes the interview. Thank you very much for your participation.

APPENDIX F: SAMPLE OF STOPLIGHT 101 COURSE



(The Stoplight Approach, 2024)



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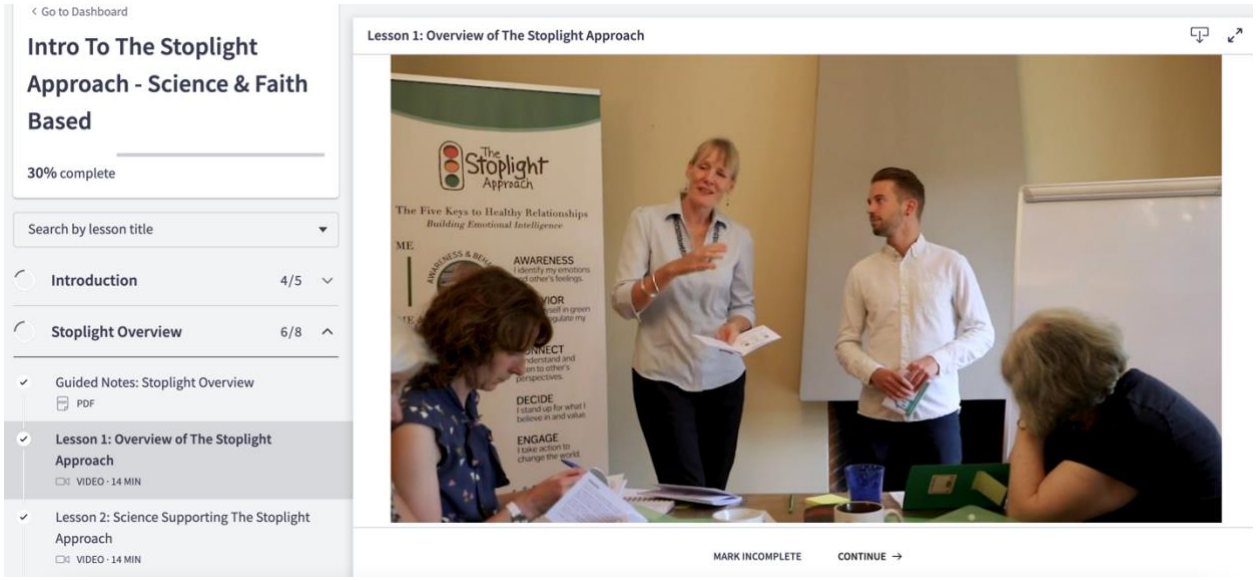

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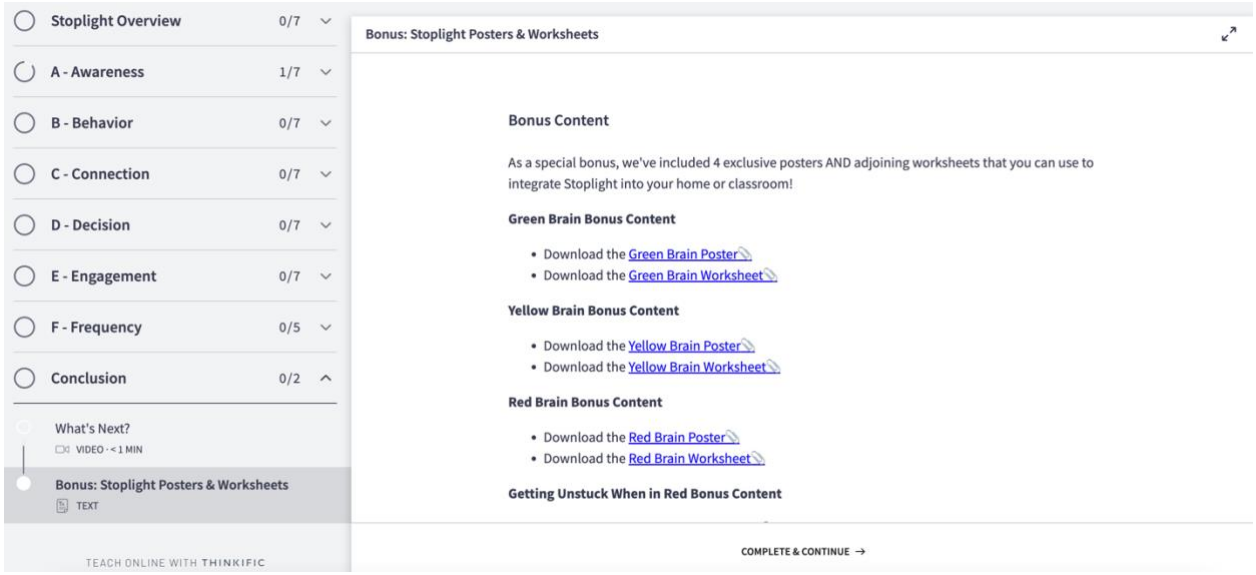
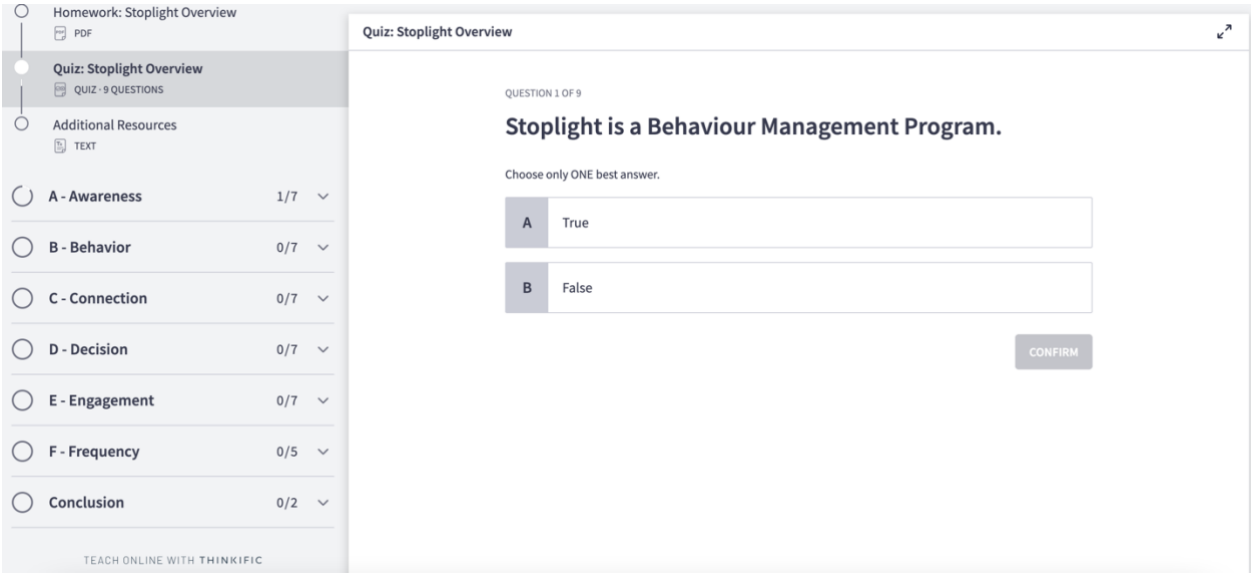


(The Stoplight Approach, 2024)



(The Stoplight Approach, 2024)