Theory of Change (Narrative Version)

Problem Statement:

OPTION 1: South Africa’s children are under performing at school, in part due to the huge emotional burden they carry (from the pandemic and beyond)

OPTION 2: Due to the COVID-19 pandemic and other systemic stressors, many of South Africa’s children and teachers are not in a state of mind conducive to learning. (Less specific about school performance and more about state of mind.)

Long-term goal:

Create calm classroom environments that are more conducive to learning

Get teachers and learners into a regulated, integrated, calm state of mind conducive for learning

Increase learner experiences of teachers as regulating

Theoretical Position:

South African learners and teachers face multiple stressors on a daily basis. Food and housing insecurity, loss of and threat of loss of loved ones, a lack of general sense of safety, family conflict, single parenting, threats of gender-based violence, chronic illnesses, lack of access to service and more all place great emotional stress on the South African population. The COVID-19 pandemic has exacerbated the already high levels of psychosocial strain on South Africans, increasing the threat of loss of life or loss of loved ones, as well as loss of income, while reducing social contact and social support networks due to lockdown and social distancing restrictions. In addition, it is well documented that increased levels of psychosocial stress and reduced social support lead to increased family conflict, and in extreme (although not infrequent) cases increased gender-based violence, child abuse and child neglect.

Research in the field of interpersonal neurobiology has shown that a calm and safe state of mind is needed to optimise learning. This area of research shows the complex relationship between the brainstem, limbic system and middle prefrontal cortex. Our brainstem plays a major role in mediating the autonomic nervous system, which controls and regulates our heart rate, breathing, hunger, rest and also activates our fight/flight/freeze/faint responses to perceived threat. Central areas of the limbic system are responsible for implicit memory, emotional response and rapid decision making – quickly processing information (outside of conscious awareness) so as to trigger fight/flight responses in the brain stem, for rapid response to threatening situations. Such rapid and unconscious processing of information largely foregoes the use of cortical structures, in particular the prefrontal cortex, the area of the brain responsible for higher functioning abilities including abstract thought, reasoning, thinking, and planning ahead – all required for optimal classroom learning. The prefrontal cortex is also responsible for regulation of the autonomic-nervous system, social cognition, morality, and self-awareness. With repeated stress exposure, brain processes make less and less use of the prefrontal cortex, prioritising lower brain (brain stem and limbic) processes. As the brain is a “use it or lose it” organism, the lack of use of the prefrontal cortex reinforces its lack of use in future, thus causing individuals to function primarily from their lower brain areas. According to interpersonal neurobiology research, mindfulness and self and other awareness exercises help to integrate these key areas of the brain. In addition, experiences of safe, regulating adults can help foster better brain integration. (See Siegel and Schore).

These findings are strongly aligned with polyvagal theory and research, which provides in depth insight into the activation of the sympathetic and parasympathetic nervous system. The [vagus nerve](https://en.wikipedia.org/wiki/Vagus_nerve" \o "Vagus nerve), in particular, is said to play a central role in emotional regulation, social connection and fear response (fight/flight/freeze response activation). According to Porges et al., the activation and deactivation of the sympathetic (fight flight) nervous system is largely affected by social affiliative behaviours. In particular, the tone of voice and facial expressions of others in one’s environment are central to the activation and deactivation of the sympathetic nervous system. An angry or scared tone of voice, or tense facial expressions are seen to activate the sympathetic nervous system, while slow, calm voices and relaxed faces deactivate the sympathetic nervous system. Deep breathing, and breathing out for longer than you breathe in has also been shown to deactivate the sympathetic nervous system. This indicated that in order to help a child (or any other) regulate, the adult (or regulator) must first be regulated themselves, and then can assist in co-regulating the other. (See Porges).

Of course, if a child or teacher is constantly going home to an unsafe environment, there are limitations to what regulating exercises, awareness exercises and mindfulness exercises can achieve. Thus, the course had built in a component of identification of risk and referral.

In addition, this intervention subscribes to Kolb’s and Bion’s experiential learning theories. Experiential learning theories assert that individuals learn best through doing, which promotes reflection on one’s personal experience as well as abstract conceptualisation.

Thus, the theory of change for this intervention is that:

1. Regulating teachers (through regulating exercises and acknowledgment)
2. And teaching teachers why (with easy to remember, visually-cued and personally related) and how (through experiential exercises) to help regulate themselves and their learners
3. Will result in more regulated learners who are in a better state of mind to learn, think and create

Activities:

* 2x 1hr experiential online training modules (as per the manual)

Indicators of success:

* Teachers report being calmer?
* Children report being calmer?
* Teachers report classrooms are more conducive to learning ???? (Quieter, Concentrating better, doing better on tests)
* Teachers can relay some understanding of interpersonal neurobiology and polyvagal theory (ie. Impact of facial expressions and tone of voice on learning; can explain the safeness and threat system)
* Teachers feel that they know and are comfortable using some INB or PT aligned calming strategies.

Theory of Change (Flow Diagram)