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The Development and Refinement of a Self-Regulation Framework:

Iterative Enhancements for Empowering Facilitators and Children's Resilience.

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Master's Thesis
Term year Spring of 2024
Master of Education and Entrepreneurship
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ABSTRACT

Oulu University of Applied Sciences
Master of Education and Entrepreneurship

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Title of the thesis: The Development and Refinement of a Self-Regulation Framework: Iterative Enhancements for Empowering Facilitators and Children's Resilience.

Thesis examiner: Sari Alatalo
Term and year of thesis completion: Spring of 2024 Pages: 80+2 appendices

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The aftermath of the pandemic has underscored the critical importance of equipping professionals with effective methodologies to nurture children's emotional regulation, self-discovery, and integrative well-being. This thesis introduces the facilitation of cognitive and bodily processes of ideas, an innovative approach that refines and integrates the Five Phases of the Self-Regulation Model into its derivation, the Idea-Embodiment Process.

Through a series of trainings conducted by Alé Duarte Somatic Trainings in Zurich, Switzerland, São Paulo, Brazil, and online settings, from October of 2023 to February od 2024. this research investigates how the Five Phases of Self-Regulation Model can be structured and presented to enhance accessibility, comprehension, and practical application of the concepts of the Five Phases of Self-Regulation Model for attending professionals. The Five Phases of Self-Regulation Model provides a structured framework for understanding and facilitating children's emotional self-regulation.

Furthermore, the study investigates the integration of the refined Five Phases Model with the Idea-Embodiment Process, nurturing children's creative and embodied exploration of their ideas. Findings suggest that this integrated approach fosters healing, resilience, and a deeper connection to children's authentic selves by creating safe spaces for idea exploration, experience processing, and self-awareness development.

The results indicate that the refined Five Phases of Self-Regulation Model, coupled with the Idea-Embodiment Process, empowered professionals with enhanced skills, perspectives, and the ability to create supportive environments conducive to children's holistic well-being. Participants reported improvements in observation, attunement, respecting children's autonomy, and facilitating self-regulation and self-discovery.

Key-words: Somatic Experience (SE) – embodiment – self-regulation –resilience – ideation – self-awareness – 5 phases cycle

CONTENTS

1. INTRODUCTION

In the rapidly evolving landscape of child development and education, the COVID-19 pandemic has brought to the forefront the pressing need for innovative methodologies that not only impart knowledge but also holistically nurture children's emotional well-being, resilience, and self-discovery. As a seasoned practitioner with over two decades of experience in somatic therapy and embodied learning, the author has witnessed firsthand the transformative potential of integrating mind-body principles into child-centered practices.

In the current landscape, these professionals face significant challenges in addressing emotional deregulation and unprocessed desires among children, exacerbated by the sudden disruption of routines and the increased reliance on electronic devices during the pandemic. These factors have amplified the need for approaches that can effectively support emotional regulation; provide safe spaces for self-expression, and nurture children's personal growth and well-being.

To address these evolving needs and adapt to changing market dynamics, the author´s company, Alé Duarte Somatic Trainings, recognizes the necessity of creating a train-the-trainer program, an "ambassador program" that will equip new professionals with the skills and knowledge to teach and support children and communities more effectively.

Through the author's extensive work with children and the training of professionals across diverse settings, he has developed the Five Phases Model – a somatic-oriented framework designed to support children's self-regulation, creativity, and overall flourishing. For the training company, The Five Phases of Self-regulation Model represents the core framework and intellectual property present for more than 150 multi-day in-person training sessions in more than 30 countries in the last 20 years. It is also an inspiration for many professionals, lectures, articles, and a structured framework for humanitarian projects, relief programs, and consulting.

This thesis work involved an iterative process of refining and adapting facilitation methods to enhance their effectiveness in nurturing children's self-regulation abilities. Through cycles of empirical observation, case studies, and facilitator feedback, existing approaches evolved to expand facilitators' repertoire and responsiveness.

Key strategies were integrated to bolster facilitators' skills, such as refining attunement practices, embodying facilitation through somatic involvement, leveraging metaphorical framing, and intentionally sculpting nurturing environments. Each iteration incorporated these nuanced methods. Comprehensive data was collected throughout the implementation and adaptation phases, capturing children's responses, facilitator reflections, and developmental outcomes. This empirical evidence guided the subsequent refinement of the facilitation methods.

Facilitators' experiences and insights were central, positioning them as co-creators in this evolution. Their authentic feedback was essential for further customization to attune to the dynamic needs manifesting across varied settings and child populations.

2. CURRENT STATE

2.1 The Facilitation Crisis and the Pandemic's Impact on Children´s Dysfunctional Behaviors

The profound impact of the pandemic on children's emotional states and routines has revealed the necessity to adapt and enhance the Five Phases of Self-Regulation Model, making it more accessible and streamlined for effective implementation by teachers, therapists, and professionals working directly with children and want to incorporate a body-oriented approach into their current expertise.

The COVID-19 pandemic has significantly exacerbated children's use of electronic devices, with recent studies indicating a dramatic rise in screen time during this period (Cellini et al., 2020; Toth et al., 2021). This shift has been further amplified by the influential insights of Tristan Harris, the co-founder of the Center for Humane Technology, who has shed light on how technology companies intentionally design their products to be addictive, particularly for children and teenagers (The Social Dilemma, 2020).

Harris has emphasized how tech companies employ sophisticated algorithms and design tactics to hijack children's attention, conditioning them to crave and engage with electronic devices for extended periods (The Social Dilemma, 2020). This increased reliance on electronic devices during the pandemic has had far-reaching consequences on children's self-regulation, emotional development, and overall well-being.

Research by Moisala et al. (2021) has highlighted both the potential benefits and drawbacks of children's use of electronic devices. On the positive side, they found that moderate use of digital media can improve cognitive abilities, such as attention and working memory, as well as enhance social connections through online interactions. However, the researchers also noted that excessive and unstructured use of electronic devices can lead to negative outcomes, including difficulties with self-regulation, reduced physical activity, and poorer academic performance (Moisala et al., 2021).

The pandemic's exacerbation of children's screen time and the tech industry's intentional design to keep children engaged have had a detrimental impact on children's ability to self-regulate their

emotions and attention (Xie et al., 2020; Cellini et al., 2020). As children become increasingly immersed in the digital world, they may struggle to transition between activities, leading to heightened states of arousal and difficulty in achieving the necessary downtime and restoration for their nervous system (Thomée, 2018; Hale & Guan, 2015).

Furthermore, the constant stimulation and distraction provided by electronic devices can inhibit children's ability to process and make sense of their experiences, compromising their integration of these events and potentially leading to dysregulated emotional responses (Hale & Guan, 2015; Porges, 2011).

As parents, mental health professionals, and educators, it is essential to recognize these patterns and advocate for a more balanced and healthy relationship between children and technology during the pandemic and beyond (Xie et al., 2020; Cellini et al., 2020; Moisala et al., 2021). Developing strategies to promote self-regulation, facilitate mindful technology use, and ensure adequate time for rest and integration can help mitigate the negative impacts of excessive screen time on children's well-being.

This thesis represents a pivotal step in the evolution and derivation of the Five Phases of Self-Regulation Model, propelling it towards a refined and optimized framework – the Idea-Embodiment Process. By grounding this practical work in empirical research and theoretical underpinnings, the author aim to describe the evolution processes of it into a user-friendly that can be seamlessly integrated into existing educational and therapeutic practices empowering professionals to address the unique challenges posed by the post-pandemic era.

2.2 Author's Experience and Competence

Duarte, the author of this thesis, possesses extensive experience and expertise in the field of somatic therapy and embodied learning for child development. His journey began in 2004 when he was invited by Dr. Peter Levine, a renowned pioneer in Somatic Experiencing, to develop a program aimed at supporting the resilience and well-being of children and families traumatized by the devastating tsunami in Thailand.

This formative experience allowed Duarte to hone his skills in transcending language and cultural barriers. He ultimately developed the Five Phases of Self-Regulation Model, a culture-sensitive framework designed to foster self-regulation and emotional expression in children affected by traumatized experiences in natural disasters. Using simple yet culturally accessible activities, Duarte cultivated a nuanced understanding of nonverbal communication and behavioral patterns, enabling him to effectively connect with and support children from diverse backgrounds.

As the founder of Alé Duarte Somatic Trainings, Duarte has demonstrated his leadership and commitment to sharing his knowledge and experiences with other professionals in the field. Through his company's comprehensive Kids in Tune training programs, he has equipped more than 7 thousand therapists, educators, social workers, and body-oriented practitioners with the tools and frameworks to support children's self-regulation, creativity, and holistic development.

Notably, the Five Phases of Self-Regulation Model has remained a central component of Duarte's teachings and his company's intellectual property. His ability to continuously refine and adapt this framework to various cultural contexts and evolving needs showcases his adaptability, commitment to continuous learning, and dedication to professional growth.

With his extensive firsthand experience, theoretical grounding, and passion for empowering children and professionals, Alé Duarte has established himself as a respected authority in the field of somatic therapy and embodied learning for child development. His commitment to refining and simplifying the Five Phases Model through this thesis reflects his dedication to ensuring that his life's work remains accessible, effective, and relevant in the ever-evolving child development and education landscape.

2.3 Introducing the Author's Training Company

2.3.1 Alé Duarte Somatic Trainings

Alé Duarte Somatic Trainings is a training company dedicated to providing comprehensive training programs in somatic therapy and embodied learning for professionals working with children. Founded by Duarte, an experienced expert in the field, the company has its roots in the profound experience of supporting children and families in the aftermath of the devastating 2004 tsunami in Thailand.

Over the past two decades, Alé Duarte Somatic Trainings has established its importance in the somatic-oriented field, collaborating with various institutions, organizations, and government bodies

across multiple countries. The company's extensive network of partners includes esteemed entities such as the Somatic Experiencing Trauma Institute (SETI), Jungian Institute Zurich, Red Noses International, SOS International (London), Red Cross, Caritas, Karan Foundation (USA), Red Noses International (Vienna, Austria), Beijing University of Psychology, Museo de Arte Moderna da Bahia, Caixa Cultural (São Paulo),

2.3.2 Company's Stakeholders and Their Interests

The primary stakeholders of Alé Duarte Somatic Trainings include therapists, educators, social workers, body-oriented practitioners, parents, and family members who work directly with children. These stakeholders seek effective methodologies and tools to support children's self-regulation, creativity, emotional well-being, and holistic development. Additionally, educational institutions, therapeutic centers, and organizations focused on child development and well-being have a vested interest in the company's offerings and the refinement of its frameworks.

2.3.3 Workplace's Competence Requirements

The company's workplace competence requirements include a deep understanding of somatic therapy principles, embodied learning approaches, and child development theories and the practical application of these concepts in diverse educational and therapeutic settings. Effective communication skills, cultural sensitivity, and the ability to adapt training methodologies to different contexts are essential for the company's team.

2.3.4 Author's Task and Its Competence Requirements

As the founder and lead instructor of Alé Duarte Somatic Trainings, Alé Duarte's primary task is to refine and optimize the Five Phases Model into the Idea-Embodiment Process, a streamlined and user-friendly framework for professionals working with children. This task requires a deep understanding of the theoretical foundations and empirical evidence supporting the effectiveness of the Five Phases Model, as well as an ability to systematically adapt and present the framework for ease of implementation across diverse settings.

Additionally, Duarte must anticipate and address potential challenges and implications associated with the integration of the Idea-Embodiment Process into existing educational and therapeutic practices.

This demands a comprehensive understanding of the field, cultural sensitivity, and the capacity to develop strategies for successful adoption and sustainable implementation.

2.3.5 Author's Stage of Professional Development and Development Needs

With over two decades of experience in the field of somatic therapy and embodied learning for child development, Alé Duarte is an experienced practitioner in the field. However, the refinement and simplification of the Five Phases Model into the Idea-Embodiment Process represent a significant stage in his professional development, requiring him to synthesize his extensive practical knowledge with theoretical frameworks and empirical research.

Duarte's development needs may include furthering his understanding of relevant theoretical concepts, staying abreast of the latest research in the field, and developing strategies for effectively disseminating and training the Idea-Embodiment Process to a diverse audience of professionals.

In the current landscape, characterized by the aftermath of the COVID-19 pandemic, professionals working with children face significant challenges in addressing emotional dysregulation, unprocessed desires, and the impact of increased reliance on electronic devices and social media. Recognizing these evolving needs, Alé Duarte Somatic Trainings has undertaken the crucial task of refining and optimizing its core offering, the Five Phases Model, into a more accessible and user-friendly framework – the Idea-Embodiment Process.

Through this refinement process, which lies at the heart of this thesis, the company aims to contribute to the professional development of educators, therapists, and practitioners working with children. By offering a comprehensive yet accessible somatic-oriented approach, Alé Duarte Somatic Trainings strives to empower professionals with the necessary tools and strategies to address the unique challenges posed by the post-pandemic era, fostering self-regulation, emotional well-being, and holistic growth in children.

Table 1: This table describes the Kids in Tune, Screen Masters, and Idea-Embodiment Process Training programs offered by Alé Duarte Somatic Trainings in 2024

Program Name	**Length**	**Focus**

Kids in Tune (DAST Framework)	Three-module, five-day in-person training	Equipping professionals with the Five Phases Model and somatic therapy principles to support children's self-regulation, creativity, and overall well-being.
Screen Masters	Six-week online program with weekly two-hour encounters	Addressing the impact of screen time and digital media on children's development and providing strategies for promoting healthy technology usage and balance.
Idea-Embodiment Process Training	Four-day in-person program	Introducing and training professionals in the refined and optimized Idea-Embodiment Process framework, an evolution of the Five Phases Model designed for easier implementation and enhanced effectiveness in supporting children's self-regulation and creative expression.

Note: This table is based on the Ale Duarte Somatic Training schedule in 2024

3. TORETICAL BACKGROUND

3.1 Somatic Experiencing (SE)

Somatic Experiencing (SE) is a body-oriented approach to healing trauma and stress disorders developed by Dr. Peter Levine (Levine, 1997). This modality is rooted in the understanding that trauma is not merely a psychological phenomenon but also has profound physiological effects on the body (Payne et al., 2015). The history of trauma studies dates back to the late 19th and early 20th centuries when Sigmund Freud and Josef Breuer began exploring the impact of past traumatic experiences on current psychological conditions (Van der Kolk, 2014). However, it was not until the formal recognition of Post-Traumatic Stress Disorder (PTSD) in 1980 that interest in trauma and its treatments expanded significantly (Levine, 2010).

Peter Levine's contributions came at a time when the dominant focus was on cognitive and behavioral symptoms of trauma. His work provided a fresh perspective by incorporating the physical body as a major element in trauma therapy (Levine, 1997). Levine's development of SE emphasizes the interconnection between the mind and body, representing an essential chapter in the evolving understanding of trauma, emphasizing its physiological and psychological aspects (Payne et al., 2015).

Some schools are beginning to incorporate SE principles and practices into their trauma-informed approaches (Rossen & Hull, 2013). This may include teaching students body-based grounding techniques, promoting sensory awareness, and supporting self-regulation through movement and play (Levine & Kline, 2007). By addressing the physiological effects of trauma, SE offers a complementary approach to traditional cognitive and behavioral interventions, providing a more comprehensive framework for supporting children's well-being in educational settings (Payne et al., 2015).

3.2 Alan Fogel's Embodied Self-Awareness in Schools

Alan Fogel's work on embodied self-awareness has significantly contributed to understanding the connection between bodily sensations, emotions, and overall well-being. His research, particularly in his book "Body Sense: The Science and Practice of Embodied Self-Awareness" (Fogel, 2013),

explores the science behind body awareness and how individuals can become more attuned to their physiological states as a pathway to understanding their emotions and behaviors.

Fogel's concept of embodied self-awareness is central to his contributions. He distinguishes between basic body awareness, which is a more objective and detached awareness of bodily sensations, and embodied self-awareness, which involves a subjective and integrative experience that connects bodily sensations to emotional states and identity (Fogel, 2011). This nuanced understanding aids therapists and practitioners in developing more effective strategies for clients who may be disconnected from their bodies due to trauma or stress (Fogel, 2009).

In therapeutic settings, Fogel's work encourages clinicians to help clients become more attuned to their physical sensations as a way of accessing and processing emotions (Fogel, 2013). This approach is particularly beneficial in trauma therapy, where clients often need help in reconnecting with their bodies to heal (Fogel, 2009).

Although Alan Fogel's direct contributions to educational settings may not be as extensively documented as those in clinical settings, the principles derived from his work have important implications for schools and children (Fogel, 2013). Concepts from embodied self-awareness can be integrated into educational programs to enhance students' emotional and social learning, support special needs education, and enrich mindfulness and movement programs.

Additionally, providing training for teachers and school counselors in embodied self-awareness can empower them to better support their students' emotional and psychological needs, helping students manage stress and navigate the challenges of growth and development more effectively.

3.3 Emotional Intelligence

The concept of Emotional Intelligence (EI), popularized by Daniel Goleman's 1995 book "Emotional Intelligence: Why It Can Matter More Than IQ," has had a profound impact on various disciplines, including education, psychology, and business (Goleman, 1995). EI refers to the ability to recognize, understand, and manage one's own emotions, as well as the emotions of others (Mayer & Salovey, 1990).

field of education, the recognition of emotional intelligence has led to the development of programs aimed at improving social and emotional learning (SEL) among students (Durlak et al., 2011). These programs aim to equip students with the emotional and social competencies necessary to succeed in school and later in life. Research has shown that SEL programs can improve academic performance, increase prosocial behaviors, and reduce anxiety and depression among students (Collaborative for Academic, Social, and Emotional Learning [CASEL], 2013).

Similarly, in psychology and counseling, understanding and improving emotional intelligence has become a target of various therapeutic interventions (Bar-On, 2006). EI is seen as integral to managing stress, depression, and anxiety. Therapists often work on enhancing clients' EI skills to help them better manage their emotions and improve their relationships (Goleman, 2001).

Prior to the popularization of emotional intelligence, the prevailing view in psychology and society tended to emphasize cognitive aspects, like IQ, as the primary contributors to success in life and work. Emotional aspects were often seen as secondary (Goleman, 1995). However, emotional intelligence's introduction and subsequent popularity challenged this view and brought a more holistic understanding of human intelligence and capability. It highlighted the importance of emotional and social skills, which had often been undervalued (Mayer et al., 2008).

Today, emotional intelligence is widely accepted and integrated into various fields, including business, education, and mental health. The concept has influenced how individuals are evaluated for jobs, how leaders are trained, and how educational curricula are designed (Goleman et al., 2013). The widespread acceptance and integration of emotional intelligence into various aspects of society represent a significant cultural shift toward recognizing the complexity of human capabilities and the importance of emotional and social skills in achieving personal and professional success.

3.4 Conceptual Metaphor Theory

Mark Johnson and George Lakoff's work on Conceptual Metaphor Theory explains how metaphors shape human thought and reasoning. In their seminal work, "Metaphors We Live By," published in 1980, Lakoff and Johnson challenged the traditional view of metaphors as mere linguistic devices or figures of speech. They argued that metaphors are not just a matter of language but are deeply rooted

in our conceptual system and play a fundamental role in shaping our thoughts, experiences, and actions.

Lakoff and Johnson proposed that metaphors are not just linguistic expressions but cognitive mappings that allow us to understand one conceptual domain (the target domain) in terms of another conceptual domain (the source domain). These metaphorical mappings are grounded in our embodied experiences and enable us to comprehend abstract or complex concepts by drawing on more concrete, familiar domains. For example, the metaphor "Life is a journey" allows us to conceptualize the abstract notion of life in terms of the more concrete domain of a journey, with concepts like starting points, obstacles, destinations, and paths.

Lakoff and Johnson's work demonstrated that metaphors pervade our everyday language, thoughts, and actions, often unconsciously shaping our understanding of complex phenomena such as time, emotions, and abstract concepts. By revealing the ubiquity and cognitive significance of metaphors, Lakoff and Johnson's research opened up new avenues for exploring the relationship between language, thought, and embodied experience, influencing fields such as cognitive linguistics, philosophy, and psychology.

3.5 The Five Phases of the Self-Regulatory Cycle: A Pathway to Resilience and Survival

The Five Phases of the Self-Regulatory Model draws inspiration from the cyclical patterns observed in predator-prey interactions, described by Duarte in the book Inclusion, play and Empathy: neuro affective development in Children's Groups in 2016, providing valuable insights into the Mechanisms that govern our own self-regulation processes. By examining these interactions, we can gain a deeper understanding of human behavior and emotional regulation while drawing parallels between the biological and psychological realms.

The Cyclical Nature of Predator-Prey Interactions:

Predators, such as cheetahs and lions, engage in hunting for various reasons, including acquiring food, protecting their territory, and ensuring the survival of their offspring (Kruuk, 1972). Similarly, prey animals, like impalas, must constantly adapt and respond to the threats posed by predators to

ensure their own survival. The interactions between predators and prey follow a cyclical pattern that can be divided into five distinct phases: rest, readiness, action, interaction, and integration, demonstrated in Figure 1.

Phase 1: The Rest Phase – The Rest Phase represents a state of deep relaxation and replenishment, akin to the safety and protection experienced by a prey animal in its secure hiding place. During this phase, the nervous system is in a balanced state, allowing the individual to fully integrate and recover from previous experiences (Duarte, 2015). Just as a lion may rest and digest its meal after a successful hunt, humans in the Rest Phase are able to recharge and prepare for future challenges.

Phase 2: Readiness – As new goals or invitations to engage emerge, the individual transitions into the Readiness Phase. This phase is characterized by heightened physiological arousal, increased adrenaline levels, and a narrowed focus (Levine, 1997). The individual prepares for action, anticipating the challenges and opportunities that lie ahead (Duarte, 2015). In the context of predator-prey interactions, this phase can be observed when a cheetah spots a potential prey and begins to stalk it, gathering information and assessing the best approach for the hunt.

Phase 3: Action – The Action Phase marks the moment when the individual directs their energy towards active engagement, seeking opportunities to defend, explore, and interact with the environment. This phase is often short and explosive, characterized by a flow of arousal energy and dynamic muscle movements (Ogden et al., 2006). The Action Phase represents the manifestation of the individual's intentions and capacities, setting the stage for the subsequent Interaction Phase (Duarte, 2015). In the predator-prey scenario, this phase is exemplified by the cheetah's explosive sprint towards its prey, fully committing to the chase.

Phase 4: Interaction – During the Interaction Phase, the individual engages with people, objects, systems, and their internal world (Duarte, 2015). This phase involves processing dynamic information and responding to feedback and consequences provided by the world. The individual experiences excitement and surprise as they navigate the complexities of their interactions (Duarte, 2015). In the context of predator-prey interactions, this phase is characterized by the dynamic dance between the

cheetah and the impala, as they engage in a high-stakes pursuit, each reacting to the other's movements and strategies.

Phase 5: Integration – As the activity concludes and the individual's interest wanes, they enter the Integration Phase. This phase is marked by a decrease in energy levels and a need for rest, refueling, and digesting the experience (Fogel, 2013). The individual assimilates and incorporates the experiences of the previous phases, restoring a state of homeostasis and readiness for the next cycle. Developing the skill of slowing down and noticing subtle experiences can enhance the individual's perception of their bodily sensations and inner resources (Siegel, 2012). The Integration Phase allows for meaning making and reflection, leading to personal growth and change (Duarte, 2015). In the predator-prey scenario, this phase is evident when the cheetah, having successfully caught its prey, takes the time to catch its breath, consume its meal, and integrate the energy gained from the hunt.

Application and Limitations – The self-regulatory model can be applied in various contexts, such as education, therapy, and personal development. For example, in a therapeutic setting, a client who has experienced trauma may be guided through the five phases to help them process and integrate their experiences. By recognizing the characteristics of each phase, the therapist can support the client in developing strategies to navigate their emotions and build resilience (Levine, 1997).

However, it is important to acknowledge the limitations and challenges associated with applying the self-regulatory model. Individual differences in temperament, life experiences, and cultural backgrounds may influence how one moves through the phases. Additionally, the model may not fully capture the complexity of human experiences, particularly in situations where multiple stressors or competing demands are present.

Figure 1: The five phases of self- regulation Model (Duarte, 2016)

3.5.1 Application of the Five Phases in Children´s Games

Children's games often mirror the cyclical patterns observed in predator-prey interactions as they engage in activities involving pursuit, escape, and competition. These seemingly simple games provide valuable opportunities for children to navigate the five phases of the self-regulatory model and develop essential skills related to emotional regulation, social interaction, and problem-solving (Duarte, 2015; Siegel, 2012).

Children playing tag – One common example of such a game is the classic game of tag. As a sports teacher, I observed children in the schoolyard playing tag after spending time sitting in the classroom. The game provided them with an opportunity to embody the roles of both the predator (the catcher) and the prey (the caught), alternating between the two roles throughout the game (Fogel, 2013). From an outside perspective, I could observe the cyclical pattern of the five phases unfolding as the children played:

Rest Phase: Before the game begins, the children are in a state of relaxation, observing the world around them and preparing for the upcoming activity (Levine, 1997).

Readiness Phase: As the children orient themselves to the game and the environment, their physiological arousal increases. The early stages of readiness involve gathering information, assessing resources, and preparing for action. As the cue to start the game approaches, the sympathetic nervous system is activated, and adrenaline levels rise, bringing blood circulation to the arms and legs in anticipation of the explosive action to come (late readiness) (Ogden et al., 2006).

Action Phase: The moment the cue to start is given, or when a child notices the predator approaching, the action phase is triggered. This is a defined moment of explosive muscle reaction, where the child engages in the pursuit or escape (Duarte, 2015).
Interaction Phase: During the game, the children engage in an interactive dance of chasing and escaping, constantly responding to each other's movements and strategies. This phase involves processing dynamic information and adapting to the evolving situation (Duarte, 2015).

Integration Phase: Moments of relief occur when a child reaches a safe place or asks for a break to drink water. These moments allow for a brief period of integration, where the child can catch their breath and assimilate the experiences of the game (Siegel, 2012).

The cycle repeats itself throughout the game, with children moving through the phases as they alternate between the roles of predator and prey. Once the game concludes, the children return to a state of rest, observing the world around them and preparing for the next activity (Fogel, 2013).

This example highlights how the five phases of the self-regulatory model can be observed in the games children naturally choose to play. Many of these games involve elements of the fight, flight or freeze response, as children engage in activities that simulate defending territory, protecting their self-figure, avoiding elimination from the game, striving to be the first or last, or maintaining a special status within the game (e.g., being the "master," "queen," or "king") (Duarte, 2015; Levine, 1997).

For instance, in a game of "capture the flag" (Figure 2), children work in teams to defend their own territory while attempting to invade the opposing team's territory and capture their flag. This game involves elements of the fight response (defending the flag), flight response (escaping with the captured flag), and freeze response (strategically hiding or remaining still to avoid detection) (Ogden et al., 2006).

By engaging in these games, children naturally navigate the five phases of the self-regulatory model, developing important skills related to emotional regulation, social interaction, and problem-solving (Siegel, 2012). The phases are ubiquitous in both individual interactions and group dynamics, as children learn to manage their own emotions and respond to the actions of others withinthe structured context of the game (Duarte, 2015).

Understanding the parallels between the five phases of the self-regulatory model and the games children instinctively choose to play can provide valuable insights for educators, parents, and therapists (Fogel, 2013). By recognizing the importance of these games in supporting children's emotional and social development, adults can create safe and nurturing environments that foster resilience, adaptability, and self-regulation skills (Levine, 1997; Siegel, 2012).

Figure 2: The Five Phases of Self-Regulation Model in analyzing the fight or flight response

3.5.2 The Nuances of the Five Phases in Individual Experiences

The Ishan Case – The five phases of the self-regulatory model can be observed in group activities like children's games and individual experiences. A poignant example of this can be found in the opening scene of the movie "Taare Zameen Par" (Like Stars on Earth), a 2007 Indian drama film that explores the life of a young boy named Ishaan who struggles with dyslexia (Gupte & Khan, 2007).

In this scene, the camera focuses on a small pond, revealing a tranquil environment where little fish and other objects rest at the bottom. The serene atmosphere is enhanced by the gentle background music, suggesting a sense of calm and restfulness. This setting represents the Rest Phase, where the individual (in this case, Ishaan) is in a state of relaxation and equilibrium (Levine, 1997).

As the scene progresses, Ishaan enters the frame, and his reflection on the water's surface becomes visible. He appears deep in thought as if contemplating an important idea or intention. This moment signifies the beginning of the Readiness Phase, where Ishaan's nervous system starts to engage and prepare for the upcoming activity. The early stages of readiness involve orienting oneself to the task at hand and gathering the necessary resources (Ogden et al., 2006), as seen in Figure 3.

The camera then shifts from showing Ishaan's reflection to a close-up of his face, revealing his intense gaze directed towards the fish in the pond. This transition indicates that his plan is becoming more concrete in his mind, demonstrating the progression of the Readiness Phase. Ishaan's focused attention and the subtle changes in his body language suggest that his nervous system is preparing for action (Siegel, 2012). As Ishaan gathers the instruments he brought to catch the fish, including an old cloth coffee filter to be used as a net, he enters the late stages of readiness. He positions himself, holding the makeshift net in the water, and waits for the precise moment to act. This anticipation and preparation highlight the heightened physiological arousal characteristic of the late Readiness Phase (Duarte, 2015).

In a swift and decisive movement, Ishaan sweeps the net through the water, enveloping the fish. This explosive action marks the beginning of the Action Phase, where he engages in a coordinated effort to trap the fish inside the net and transfer it to a glass jar. The interaction between Ishaan and the fish represents the dynamic nature of the Interaction Phase, as he adapts to the fish's movements to successfully complete his task (Duarte, 2015).

Once the fish swims inside the jar, Ishaan takes a moment to reflect on his achievement. This reflective moment signifies the Integration Phase, where he assimilates the experience and appreciates the outcome of his efforts. As he contemplates his success, Ishaan's body visibly relaxes, indicating a return to a state of equilibrium and rest (Fogel, 2013).

This simple act of catching a fish and placing it in a jar follows the same sequential phases as the hunting example, the game of tag, and the process of exploring an individual idea. The five phases of the self-regulatory model are present in a wide range of goal-directed activities, from daily routines like brushing teeth or completing homework to more complex endeavors like starting a project or engaging in spiritual practices (Duarte, 2015).

The ubiquity of these phases can be attributed to the fact that any goal-directed activity involves pre-activity, during-activity, and post-activity physiological engagement and preparation. The moment an individual decides to pursue a particular goal, their nervous system begins the arousal process, followed by the subsequent stages of readiness, action, interaction, and integration (Levine,1997; Ogden et al., 2006; Siegel, 2012).

By recognizing the presence of these phases in various aspects of life, individuals can develop a deeper understanding of their own self-regulatory processes and learn to optimize their experiences by cultivating awareness and strategies to navigate each phase effectively (Fogel, 2013; Siegel, 2012). This understanding can be particularly valuable in educational and therapeutic contexts, where supporting individuals in developing self-regulation skills can improve well-being, resilience, and overall functioning (Duarte, 2015; Levine, 1997).

Figure 3: The Five Phases of Regulation Model in the Analysis of Movement and Daily-Day Behavior.

3.5.3 The Alice Gabinet – Artistic Take of the Five Phases Self-Regulation Model

Alice's Cabinet (Gabinete de Alice) is a multimedia interactive installation that serves as an exploration of the Five Phases of the Self-Regulation Model, combining principles of somatic therapy with visual arts and interactive media (*Bambozzi, L., Campos, L. and Duarte, A.,2017*). Inspired by the Cabinets of Curiosities from the 16th and 17th centuries, which showcased advanced instruments and curiosities from explorations, the "Gabinete de Alice" draws parallels with Lewis Carroll's Alice, who experiences altered perceptions through encounters with mirrors and 'potions' that shift her understanding of events (Carroll, 1865).

The project offers the public an opportunity to engage with sensory experiences through audiovisual media and physical interaction, grounded in the belief that immersive experiences can profoundly impact an individual's sensory and emotional processing (Nguyen & Larson, 2015). The project incorporates elements that prompt contemplation on perceptions elicited by technological devices within a physical space, referred to as an interactive cabin. Initially conceived as the Sensory Cabin, the project features elements such as video projections, LCD screens, motion sensors, and 'haptic' surfaces (*Bambozzi, L., Campos, L. and Duarte, A.,2017). Figures 6, 7, and 8.*

The Alice's Cabinet guides participants through a sequence of phases aligned with the Five Phases Model, aiming to achieve integration and relaxation as they leave the cabin (Duarte, 2020), Figure 4. The design mirrors the Five Phases Model, suggesting that participants who navigate through arousal, dynamic modulation, energy decline, and integration will achieve self-regulation. The experience is akin to a self-regulatory journey, following a narrative with emotions and stimuli leading to a calming resolution (Porges, 2011).

The impact of the Alice's Cabinet extends to children's cognitive processes by fostering exploration, interaction, and self-expression, enhancing emotional awareness and bodily sensations (Blikstein, 2013). This aligns with the significance of awareness, engagement, executive functions, and self-regulation in child development (Baumeister & Vohs, 2004; Zelazo & Carlson, 2012).

Through this immersive and interactive installation, Alice's Cabinet serves as a tangible exploration of the Five Phases of the Self-Regulation Model. It combines somatic therapy principles with artistic and technological elements to create a multisensory experience that promotes self-regulation and emotional awareness (*Bambozzi, L., Campos, L. and Duarte, A.,2017*).

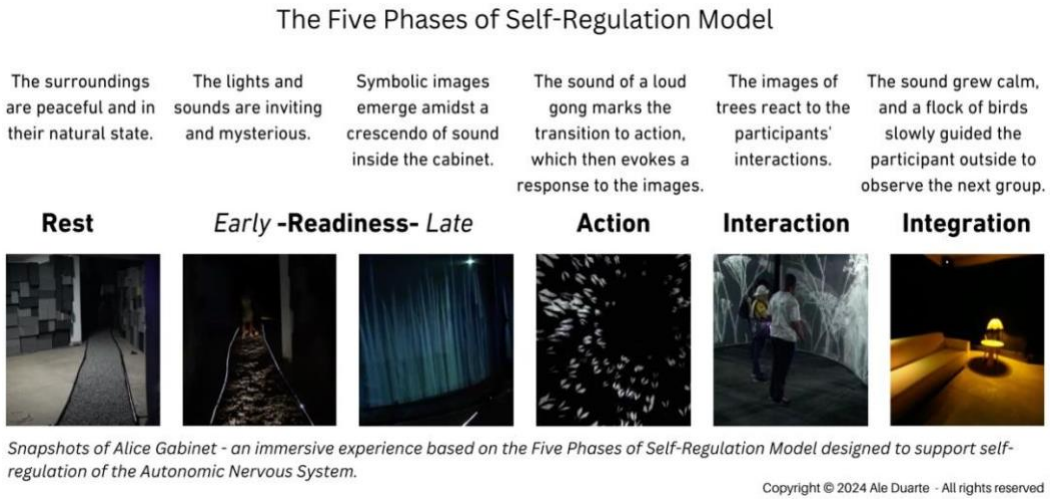
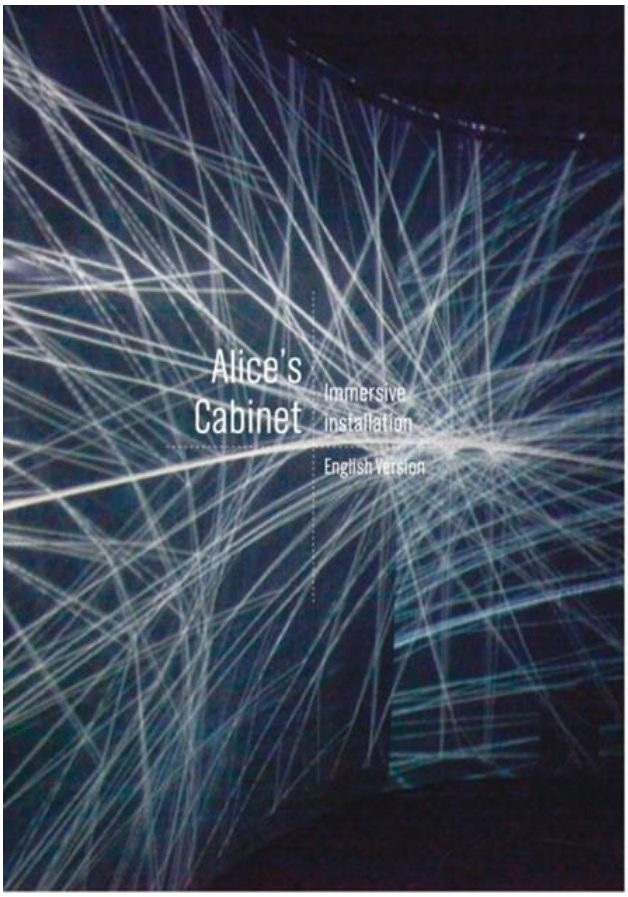


Figure 4: The Five Phases of Self-Regulation Model in an analysis of stages designed in a multi-media immersive experience- from Rest to Integration.



CAIXA is a Brazilian public company which excels by its respect for diversity. It maintains active internal committees working to promote among its employees actions, campais and programs aimed to spread ideas, knowledge and attitudes of respect and tolerance to the diversity of gender, race, sexual orientation and every other differences that characterize society.

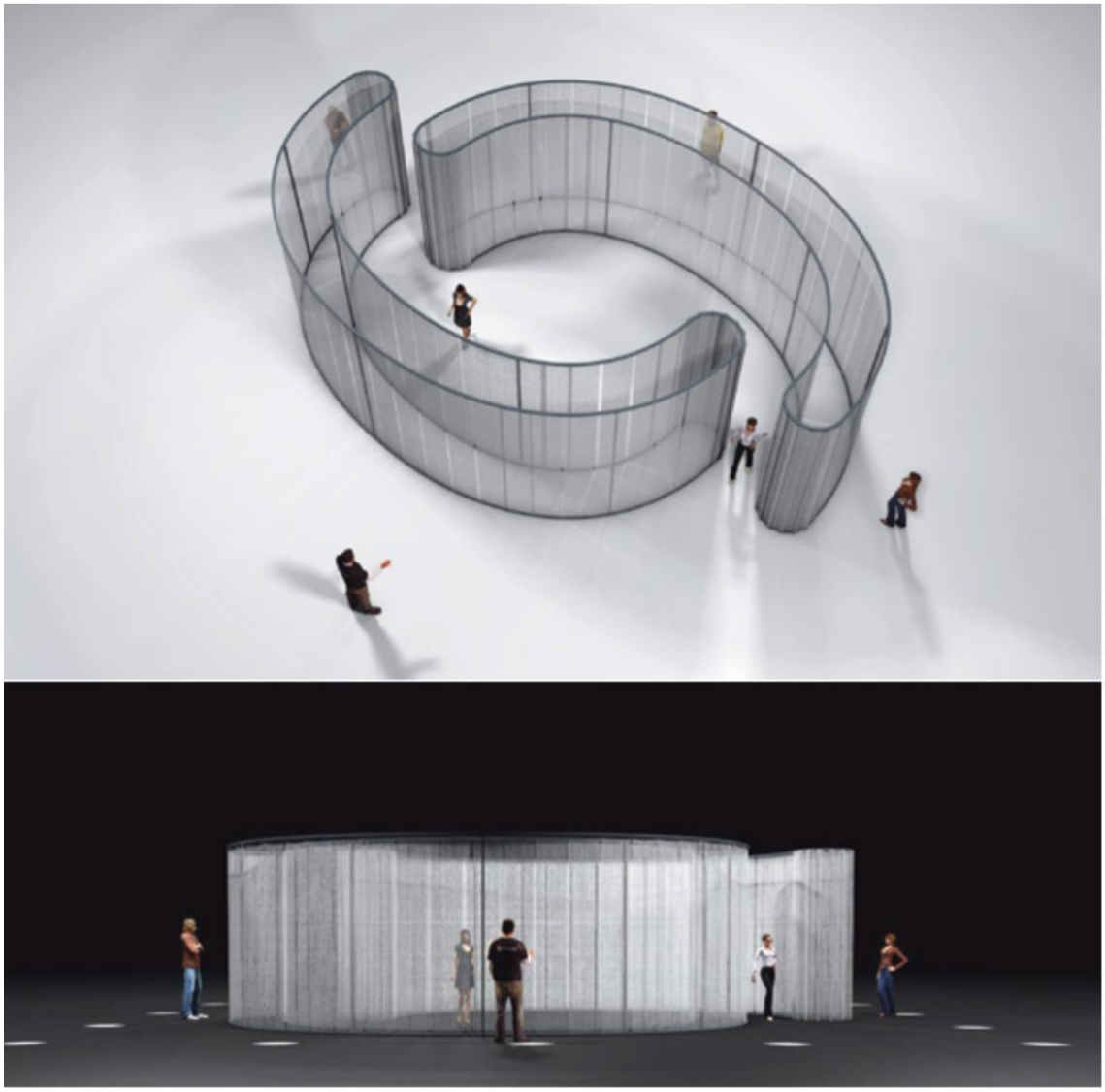
CAIXA is also a major sponsor of Brazilian culture. In 2015, we invested R$ 76 million in 539 projects throughout Brazil, visited by 931,000 Brazilians. 2016 will be an additional R$ 75 million to sponsor cultural projects in their own spaces and partners spaces, with emphasis on visual arts exhibitions, theatre plays, dance performances, concerts, theatre and dance festivals throughout the national territory.

The sponsored projects are selected via public notice, an option taken by CAIXA in order to ensure a more democratic and accessible participation of producers and artists of all the units in our federation, as well as a more transparent way to keep our society informed of the company's investment of resources.

Therefore, CAIXA contributes to promote and disseminate our national culture and returns to the Brazilian society the trust and support received throughout its 155 years of practice in the country. To CAIXA, life asks for more than just a bank. It asks for investment and effective participation in the present, commitment to the country's future and creativity to achieve the best results for the Brazilian people.

CAIXA ECONÔMICA FEDERAL

Figure 5: Pages of the catalog of Alice´s Cabinet – from the Museum of Caixa EconômicaFederal.



Visualização 3D do modelo adotado para a cabine. */ 3D visualization of the model adopted for the cabinet.*

Figure 6: Visualization of the 3D model of the Alice´s Cabinet

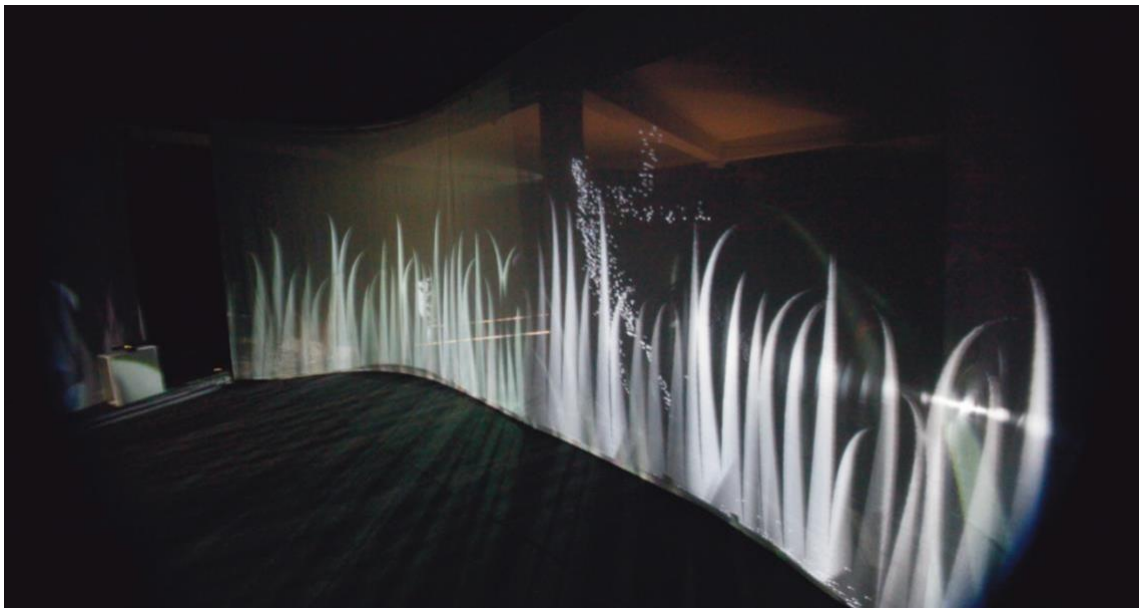


Figure 7: Pages of the catalog of Alice´s Cabinet – from the Museum of Caixa Econômica Federal. Inside view of the cabinet.

Figure 8: Pages of the catalog of Alice´s Cabinet – from the Museum of Caixa Econômica Federal. Inside view of the cabinet.

3.5.4 "Gabinete de Alice" (Alice's Cabinet) testimonials

The following testimonials and interviews provide insights into the experience of individuals who interacted with Alice's Cabinet, which aims to explore the self- regulation of the nervous system.

Through these firsthand accounts, we gain a deeper understanding of the unexpected and transformative nature of the interactive artwork.

Testimonial 1: "For me, it was very good, you travel through the images, it depends on each one's imagination. How was the experience? It was not what I expected, it was a beautiful surprise. Magic that happened unexpectedly, it's beautiful, what we think we're going to see one thing and suddenly another appears. It was beautiful."

Testimonial 2: "At the beginning, I was afraid to move forward, I looked from the entrance of the door, and it's the one that in the same way, I looked and saw what looks like a universe of bubbles. Move forward slowly, I felt like I was in a bubble in the universe. I'm going to talk about qualities that I noticed in myself when I was seeing the images, experiencing the images, I felt lightness, joy, and thirst..."

Interview:

- "What did you feel in your body, sensations after you left, for example,now?
- I felt my heartbeat inside my mouth.
- And out here, now, how do you feel?
- I feel that it worked; it went to my stomach. There were moments when I went along with the flock of trees. Birds. I think this is one more level. I didn't see much of the people inside. But the image changes."

These testimonials and interview responses offer a glimpse into Alice's cabinet's diverse and profound impact on individuals, showcasing the unique and immersive experience it provides.

4. PURPOSE AND OBJECTIVE

Research Questions, Purpose of the Thesis, Learning Objectives

This development task's primary focus is to explore how the Five Phases Model can be refined and optimized into the Idea-Embodiment Process, a streamlined framework designed to support professionals in addressing emotional dysregulation and fostering self-regulation in children, particularly in the post-pandemic context.

The key research questions guiding this endeavor include:

I. How can the Five Phases of Self-Regulation Model be structured and presented to enhance its accessibility, comprehension, and practical application for professionals attending training sessions conducted by Alé Duarte Somatic Trainings?

II. How can the Five Phases of Self-Regulation Model be enhanced and adapted to effectively support professionals in fostering children's emotional regulation, self-discovery, and holistic well-being in the post-pandemic era?

III. How can the Idea-Embodiment Process be systematically structured and presented to enhance its accessibility and ease of implementation across diverse settings?

The overarching purpose of this thesis is to contribute to the professional development of educators, therapists, and practitioners working with children by offering a comprehensive yet accessible somatic-oriented approach. By refining the Five Phases Model, the research aims to create a user-friendly framework that empowers professionals to address the challenges posed by the post-pandemic era, fostering self-regulation, emotional well-being, and holistic growth in children.

4.1 Time Span Covered in the Diary

The diary-based component of this thesis will cover approximately five months, from September 2023 to January 2024.

4.2 Diary Reporting Plan

The diary reporting will be structured according to the framework of Desing Thinking, following the stages of the service construction process. This approach will provide a systematic and organized methodology for documenting the refinement and optimization of the Five Phases Model into the Idea-Embodiment Process.

The diary entries will be organized chronologically, with specific dates corresponding to the scheduled workshops and training sessions. This temporal organization will allow for a clear temporal progression and facilitate tracking developments and insights gained throughout the process.

4.3 Diary Reporting Contents Plan

The diary reporting contents will encompass a range of development ideas and observations, including but not limited to:

I. During the thesis process, theoretical explorations and research findings inform the refinement of the Five Phases Model.
II. Insights and feedback gathered from workshops and training sessions with professionals, highlighting potential areas for improvement or adaptation.
III. Reflections on the practical implementation of each iteration of the early versions and the Idea-Embodiment Process across different settings over a period that last from September of 2023 to January of 2024, noting successes, challenges, and potential solutions.
IV. Observations from September 2023 to January 2024 and anecdotal evidence of the impact of the Idea-Embodiment Process on children's self-regulation, emotional well-being, and overall development.
V. Strategies and techniques were developed to enhance the accessibility and user-friendliness of the framework for diverse audiences.
VI. Considerations for addressing potential barriers to adoption and sustainable implementation, such as cultural, logistical, or systemic challenges.
VII. Opportunities for collaboration and knowledge sharing with other professionals in the field, contributing to the continuous refinement and dissemination of the Idea-Embodiment Process.

The diary reporting will serve as a valuable resource for documenting the iterative process of refining and optimizing the Five Phases Model, capturing insights, reflections, and developments as they unfold throughout the research period.

4.4 Aligning the Five Phases Self-Regulation Model with Embodied Aspects to Promote Self-Regulation

The Five Phases Self-Regulation Model emphasizes the importance of embodiment in understanding and promoting self-regulation. Embodiment, as defined by researchers such as Alan Fogel (2009) and Peter Levine (2010), refers to the awareness and integration of bodily sensations, emotions, and experiences into a coherent sense of self. By aligning the five phases of the model with specific embodied aspects, practitioners can support individuals in reconnecting with their bodily experiences and developing self-regulation skills (Duarte, 2015; Levine, 2010).

Central to the model is the idea that by observing external features of movement and posture, practitioners can gain insight into an individual's internal felt sense (Duarte, 2015; Levine, 2010). This process of deduction is made possible by dividing the self-regulation cycle into five distinct phases, each characterized by specific embodied aspects that reflect the individual's physiological state and emotional experiences (Duarte, 2015). Figure 9.

The alignment of the five phases with embodied aspects serves several purposes. Firstly, it enables practitioners to time their interventions precisely, such as asking questions or creating pauses in the activity (Duarte, 2015). This is crucial, as interrupting the flow of the activity at inappropriate moments can lead to discomfort or frustration for the individual (Fogel, 2009). By carefully considering the timing of pauses and interventions within the activity context, facilitators can minimize disruption and maximize the therapeutic benefits of the model (Duarte, 2015; Fogel, 2009).

Moreover, by staying longer or briefly in one phase, individuals can balance their tolerance level for that specific nervous system activation (Duarte, 2015). This process of self-regulation is supported by the practitioner's ability to recognize and respond to the embodied aspects of each phase, ultimately promoting the individual's self-awareness and emotional resilience (Duarte, 2015; Levine, 2010).

In conclusion, the aim is to align the Five Phases Self-Regulation Model with embodied aspects that are essential for promoting self-regulation. By recognizing the specific embodied cues associated with each phase, practitioners can gain insight into an individual's internal felt sense and support them in developing self-awareness and emotional resilience (Duarte, 2015; Fogel, 2009; Levine, 2010). The model's emphasis on embodiment, as understood by researchers such as Fogel, Levine, and Varela et al., highlights the importance of integrating bodily experiences and sensations into the process of self-regulation and personal growth.

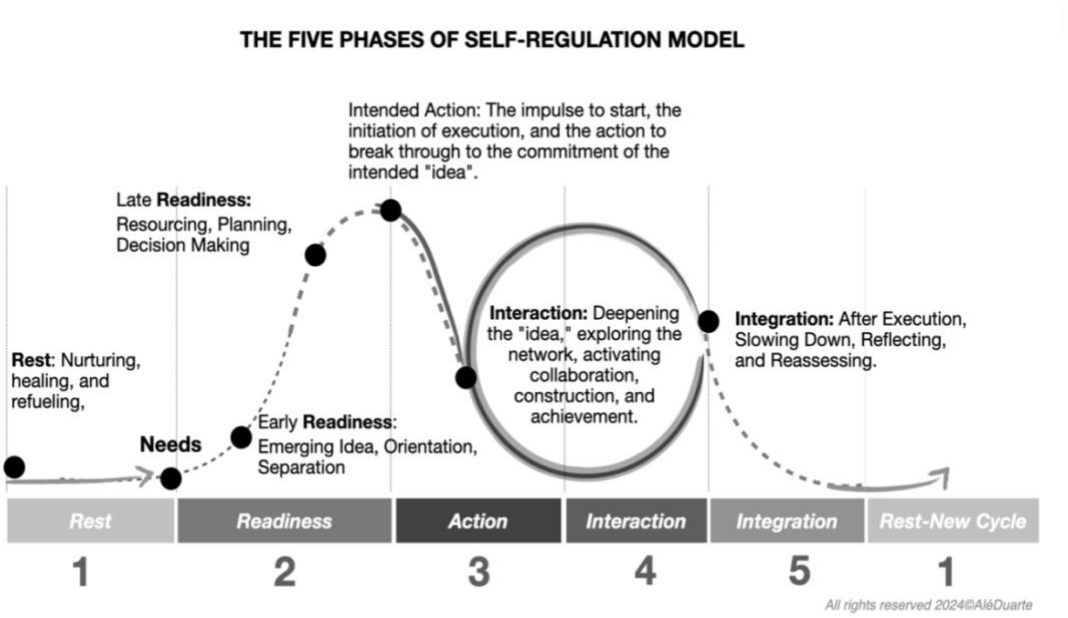


Figure 9: The Five Phases of Self-Regulation Model in analyzing the energetic arousal curve from Rest to Integration.

5. LEARNING AS DIARY ENTRIES

The diary component of this research endeavor will be structured according to the four phases of the Design Thinking creation process, employing the double diamond approach (Design Council, 2005). This framework provides a systematic and organized methodology for documenting the iterative refinement and optimization of the Five Phases Model into the Idea-Embodiment Process.

The double diamond approach consists of four phases: Discover, Define, Develop, and Deliver (Brown, 2009; Stickdorn et al., 2018). This structure aligns with the objectives of this research, which include exploring theoretical foundations, gathering insights from stakeholders, refining and developing the framework, and ultimately delivering a comprehensive and accessible training program of the model for teachers and other professionals.

Throughout these four stages, the diary entries will serve as a chronicle of the iterative journey, as summarized in Table 2, capturing the insights, challenges, successes, and developments encountered along the way. These entries will maintain a consistent, conversational tone, ensuring a cohesive and engaging narrative that accurately reflects the dynamic process of creating an accessible and impactful framework for professionals working with children (Creswell, 2013; Patton, 2015).

By adhering to the double diamond approach and documenting the iterative process through diary entries, this development task aims to provide a transparent and detailed account of the refinement and optimization of the Five Phases Model. This approach contributes to the rigor and credibility of the task and offers valuable insights and lessons that can inform future endeavors in child development and education (Yin, 2018; Stake, 1995).

Table 2: The table summarizing the phases, objectives, and learning period for the iterative refinement process:

Stage	Learning Period	Objectives
Stage 1- Discovery	Initial Exploration	Finding the igniting question for the exploration.
-	Starting Research	Investigate interdisciplinary approaches to applying complex or multi-step processes
-	Validation	Explore the rational and scientific basis for the founded material.
Stage 2- Define	Teach and Sense	Gather impressions, real-time feedback, group discussions observations.
	Post-Workshop Feedback	Gather suggestions for improvement from participants
-	Second Refinement	Identify potential areas for simplification or clarification and exclude trimmed down irrelevant steps or information.
Stage 3 Development	Redefining the Framework	Develop a simplified and accessible version of the Framework
-	Application	Teach the second iteration
Stage 4 Prototyping	Getting Ready	Develop training materials for the refined framework
Stage 5 Deliver	Implementing the Framework	Teach the third iteration
	Real time feedback and Post workshop assessment	Apply a questionnaire

The following table 3 provides an overview of the objectives for each phase of the refinement process, including focusing on accessibility for professionals and children, exploring scientific foundations, incorporating feedback from participants, and assessing the effectiveness of the framework in supporting self-regulation and engagement.

Table 3. Overview of timetable, participants, and location for the events during the thesis process.

Stage	Date	Event	Participants	Location
Stage 1 Discovery	08 September 2023	5-Phases Day-workshop	Pedagogues	Switzerland
Stage 2 Define	25-29 October 2023	Kids In Tune Training	Therapists, Pedagogues, Social Workers	Switzerland
Stage 3 Development	2, 9, 16, 23 November 2023	Somatic Tracking	Somatic Therapists	Zoom Online Classes
Stage 4 Prototyping	21 January 2024	The Power of YOUR Idea	Therapists, Pedagogues, Coaches	Brazil
Stage 4 Deliver	25-29 January 2024	Kids In Tune Training	Therapists, Pedagogues, Social Workers	Brazil

5.1 Current Development Stage of the Five Phases of Self-Regulation Model

It is noteworthy to indicate the current developmental state of the Five Phases of Self-Regulation Model since it is from there that we will build the development and refinement of this self-regulating process. The foundations and origins of the model can be traced back to the profound experience of working with children and families in

the aftermath of the devastating 2004 tsunami in Thailand. Invited by Dr. Peter Levine, a pioneering figure in Somatic Experiencing, Alé Duarte was entrusted with developing a program to support the resilience and well-being of those traumatized by this natural disaster. At that time, the author developed his model aiming only to address the direct needs of children and families. Furthermore considering the success and impact of the work, he was invited to teach other professionals. Later, he developed his first training called Trauma Healing Through Play, featuring the first version of the Five Phases of Self-Regulation Model designed for professionals. Later, as the invitations grew solid and different opportunities for iterations led to the development of a more comprehensive program.

- **First Iteration - 2004**
    - Designed to work directly with children and families, its early version was crafted in the personal notebook, and it was constituted of five blocks represented by the observation of the 5 embedded states of an observation of a prey and predator hunting pattern in the savannah. 1. State of Settled 2. State of Readiness 3. State of Action 4. State of Interaction 5. State of Integration.

- **Second Iteration: 2005**
    - Designed to teach professionals, Trauma Healing through Play had as a central framework The Five Phases of Self-Regulation Model. It was designed in a linear progression but featured the ups and downs of a line that represented the nervous system's activation in each of the phases. It was also known as the “rollercoaster model” due to the graphic description of the roller coaster.
- **Third Iteration: 2013**
    - The third iteration adopted a cyclical representation of the phases, starting with the Settled Phase at the bottom of the circle and going through all the stages to demonstrate this everlasting loop of tasks and activities. This structure and representation became the way teaching, and materials were structured, but over time, it was clear that the observation of a cycle was logically understandable but not easy to apply and identify during kids’ actions during the sessions.

- **Fourth Iteration: 2022**

    - In the fourth iteration, the author stepped back from the emphasis on the need to complete cycles to highlight the most critical phases when teaching short workshops and making interventions in areas affected by a natural disaster or social disruption when a streamlined framework is necessary. Under these circumstances, having a framework that can capture the assessment and design practice and apply and adjust in the moment is an excellent asset to professionals. For that, I designed the Five Phases as an arc with three main divisions: Hold, Flow, and Slow. These three phases captured the essence of the pre-activity, activity, and post-activity. With that, two of the phases were implied in the process.

- **The Fifth Iteration Process:**

The construction of the fifth iteration of the Five Phases of Self-Regulation model is guided by three fundamental principles: the principle of complexity, the principle of simplification, and the principle of metaphorical cognition. These principles are grounded in theoretical frameworks and empirical research, offering a robust foundation for the iterative refinement process.

The principle of complexity recognizes that the structure of the Five Phases model evolves by building upon the foundation of its predecessor stages, progressing from less complex to more complex iterations. This principle aligns with the work of Complexity Theory pioneers, such as Ilya Prigogine (1997) and Stuart Kauffman (1995), who demonstrated that complex systems often emerge from relatively simple initial conditions through iterative processes of self-organization and adaptation. By embracing this principle, the fifth iteration aims to incorporate the insights and learnings from previous iterations, gradually enhancing the model's depth and applicability to address increasingly complex scenarios.

The second principle, the principle of simplification, acknowledges that a well-crafted framework or model can simplify and elucidate complex situations, rendering them more accessible and comprehensible. This principle resonates with the work of Herbert Simon (1996) on bounded rationality and the concept of "satisficing" – the idea that simplification is often necessary to navigate complexity effectively. By adhering to this principle, the fifth iteration strives to distill the

essence of the Five Phases model into a streamlined and user-friendly form, enabling facilitators to apply it more readily in various contexts, including trauma- informed educational settings.

The third principle, the principle of metaphorical cognition, draws upon the groundbreaking work o George Lakoff and Mark Johnson (1980) on conceptual metaphor theory. This principle recognizes the power of metaphors as cognitive tools that shape our understanding and facilitate the comprehension of abstract or complex concepts through the mapping of familiar domains. By leveraging metaphorical representations, the fifth iteration aims to provide a relatable and embodied framework that resonates with facilitators' lived experiences, enhancing their ability to grasp and implement the Five Phases model effectively.

5.2 Starting Research

The rise of emotional dysregulation among children, teachers, and other professionals who educate, guide, play, or treat them in their offices and clinics inspired the fifth iteration. The post-pandemic era exacerbated the complexity gap, a phenomenon described by Adriano Borgo and Demetri Terzopoulos (2020) as the disparity between the demands children bring into their environments and the skills necessary for professionals to address them effectively. When the complexity of children's needs exceeds the capacity of professionals to respond adequately, a complexity gap arises.

Navigating this complexity gap requires innovative approaches that bridge abstract concepts with embodied understanding. The human mind has an innate capacity to make sense of intricate and multifaceted experiences through metaphor. Drawing from Mark Johnson's seminal work (1987), we understand that metaphors are not mere linguistic ornaments but rather powerful cognitive tools that shape our perception and comprehension of reality.

In the realm of complex issues and situations, metaphors play a pivotal role in bridging the gap between abstract concepts and our embodied understanding. They serve as conduits, translating the intangible into tangible forms that resonate with our lived experiences. Through metaphorical mapping, we can grasp the essence of complex phenomena by mapping them onto familiar domains of knowledge, tapping into our embodied cognition and intuitive grasps.

5.3 The Use of Metaphor for Closing the Complex Gap

The Airplane Metaphor, developed by Donald Miller from Business Made Simple, has been widely adopted in entrepreneurial programs such as the Small Business Flight School and the Story Brand. Miller eloquently uses the metaphor of an airplane, where each part represents a segment of a business, to simplify and make creating and managing a business more comprehensive and less complex (Miller, 2021).

Miller's methodology, "The Flight Plan," is based on six key parts of the plane, each playing a crucial role in a business's success. The cockpit represents leadership, aligning the team around common economic priorities. The right engine symbolizes marketing, clarifying the message and communicating it effectively to customers. The left engine represents sales, inviting customers into a narrative and positioning them as the hero. The wings represent products, prioritizing and creating high-demand, high-profit offerings. The body represents overhead and operations, running a lean business and organizing the team using only five meetings. Finally, the fuel tanks represent cash flow, implementing sound financial practices and understanding cash flow (Miller, 2021).

Adopting this metaphorical systematization, which includes the use of a unifying metaphor, helps professionals become aware of the interdependent parts and competencies required to facilitate effective sessions with children and adults. Working with children individually and in groups demands constant attention and improvisation, and the use of a metaphor can bridge the gap between abstract concepts and embodied understanding (Lakoff & Johnson, 1980).

In the context of professional training, the use of metaphor serves as a powerful tool in explaining complex concepts related to development, establishing common ground to identify problems, find solutions, and interconnect missing parts with the whole. By adopting metaphor as a container of information and experiences, facilitators can reduce the learning curve and help children grasp the abstract nature of ideas more easily (Lakoff & Johnson, 1980). This approach allows for more time to be spent exploring children's ideas, feelings, and sensations, fostering a deeper understanding and connection.

The garden and the life cycle of plants metaphor draw upon a universal understanding that transcends cultural boundaries (Koffka, 1935). It reflects the intricate cycles and adaptations that occur within the natural

world, as evidenced by the work of Chamovitz (2012) in "The Life of Plants." Just as plants undergo periods of growth, dormancy, and rejuvenation, so too do the ideas that take root in the fertile soil of a child's mind. The garden metaphor offers timeless wisdom and a touchstone of simplicity in nurturing children's creativity and idea development. By embracing the role of master gardeners, professionals can create an environment that celebrates the unique "gardens" each child cultivates. Through metaphor, experiential learning, and a deep understanding of the cycles of idea growth, children are empowered to reclaim their agency, navigate challenges, and bring their ideas to life.

This metaphorical approach fosters a generation of creative thinkers who are connected to their own unique ideas and equipped with the skills to nurture them from seed to fruition. By embracing the universality of the garden metaphor, professionals can tap into a shared understanding that transcends cultural barriers, facilitating a deeper connection with children and their creative processes.

5.4 Stage 1 - Discovery (8-September 2023)

On September 8th, 2023, the authors were invited to a workshop targeted at pedagogues and educational psychologists in Switzerland.
Background and Participants:

• The organizers have been conducting continuing education days for psychologists for two decades. The typical attendees comprise school psychologists and psychotherapists, with a usual participation of 30 to 50 individuals.
• Many participants had recently attended the congress for pedagogues in Biel-Bienne in Switzerland and expressed interest in the concept of self-regulation presented.
• The organizers inquired about the availability to conduct a continuing education day on self-regulation in 2023, requesting potential date suggestions.
• The upcoming event on Friday had garnered significant interest, with 89 registered participants, marking an unprecedented attendance level for the organizers.

5.4.1 Participant´s motivation for taking the workshop:

A considerable number of attendees had previously encountered the presenter at the congress and were intrigued by the concept of self-regulation. The organizers extended an invitation to create a continuing education day focused on this topic in 2023, contingent upon availability and suitable date proposals.

Theme and Workshop Goals:

Topics to explore in-depth:

- The five phases of self-regulation
- Identifying and applying the different phases of self-regulation in school settings
- Strategies for teachers to support children in self-regulation
- Understanding the causes and triggers of dysfunctional behavior
- Learning approaches to promote children's ability to self-regulate and develop social resilience
- Techniques for addressing aggressive behavior, difficulty concentrating, and hyperactivity

The workshop's central themes and objectives encompassed an in-depth exploration of the five phases of self-regulation, enabling participants to recognize and implement these phases within school environments. Additionally, the workshop aimed to equip attendees with strategies for teachers to facilitate children's self-regulation and comprehend dysfunctional behavior's underlying causes and triggers. Furthermore, participants sought to acquire methods to cultivate children's ability to self-regulate, develop social resilience, and effectively manage challenges such as aggressive behavior, concentration difficulties, and hyperactivity.

5.4.2 Application and Logical Structure for Teaching the Course:

• The authors prepared a deck of slides following a logical process, beginning by highlighting the problem of children facing emotional dysregulation and the consequent complexity gap experienced by facilitators.

• The hypothesis was that addressing these complex demands necessitated bringing awareness to six essential disciplines through the garden metaphors. The authors anticipated that the universal experience of caring for a garden or plant would enable participants to comprehend these six disciplines: Intentionality, Development, Energetic States, Emotions, Facilitation, and Soil.

The underlying assumption was that the metaphor would assist in scaffolding the understanding of which discipline required attention at any given moment during the facilitation of children's sessions. See in Figure

10. In their seminal work "The Way We Think," Fauconnier and Turner, (2002) introduce the concept of conceptual blending, which explores how individuals combine and integrate different conceptual domains to create new meanings and understandings. Within this framework, metaphors are seen as conceptual blends, where elements from different domains are selectively projected and integrated into a new emergent structure. This process of conceptual blending is closely tied to the notion of scaffolding, which refers to the cognitive support structures that facilitate learning and knowledge acquisition. Metaphors, by their very nature, serve as scaffolds that enable the grasp of abstract or complex concepts by mapping them onto more familiar domains of knowledge. For instance, when attempting to understand the intricate workings of the human mind, individuals often employ metaphors drawn from domains such as computer systems or architectural structures. By mapping the mind onto these familiar domains, understanding is scaffolded, utilizing existing knowledge as a foundation to build upon and gradually refine comprehension of the more abstract target domain.

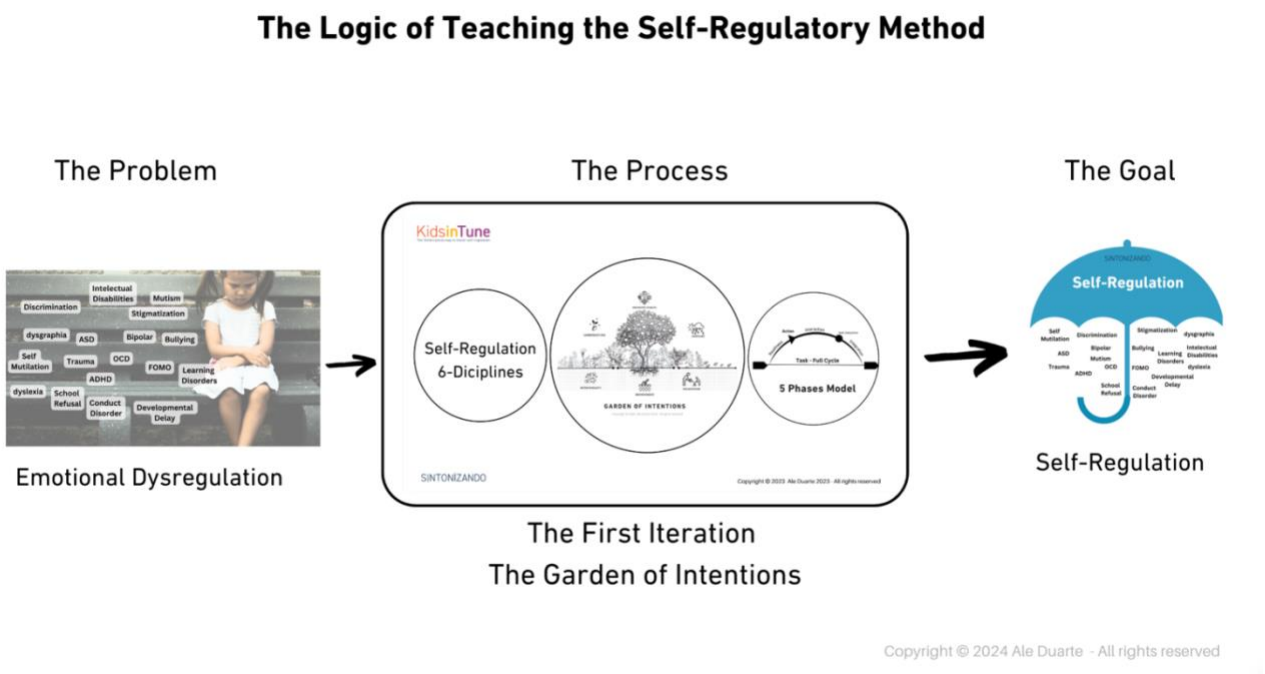


Figure 10: The logic of teaching the Self-regulatory method. In this image, there are three steps.

5.4.3 Validation and Assessment of the Process Moment to Moment:

• Initially, during the lecture, the author of this thesis, Alé Duarte, observed that the presentation interested and intrigued the class. Non-verbal cues, such as nodding, furrowed brows, and silence when probed, suggested that the material was not immediately easy to grasp or relevant for the audience.

• As the presentation progressed, questions emerged that probed the relevance of the material in real-life scenarios. Continued long silences indicated that certain aspects were not easily comprehensible to the participants.

• In peer-to-peer discussions, participants commented that the concepts were intriguing but difficult to implement in their daily practice, although they considered it an interesting tool for communicating with parents.

• The authors found themselves overexplaining and justifying the importance of the method for identifying the root causes of disagreements among children. However, other questions arose, comparing the tools used in non-violent communication, Rosenberg, M. B. (2003), as a more direct approach for dealing with children's disagreements.

• Positively, the concept of following children's ideas and the notion that an idea has a thread and path of construction was well-received and discussed.

5.4.4 Personal Take and Feedback:

• The authors observed an excessive effort on both sides, marked by resistance from the audience, comparisons with other methods, and excessive justification for the tool's potential benefits in facilitation.

• In conclusion, the approach was not as intuitive and straightforward as expected. However, the fact that the notion of the "idea" as a conduit was familiar and accepted by the participants was positive.

• The use of the six disciplines for self-regulation, as seen in Figure 11, indicated a need to change and modify the process.

Figure 11: PowerPoint slide of the six disciplines.

5.5 Stage 2 - Defined (25-29 October 2023)

5.5.1 Event: Kids in Tune Training for Therapists, Pedagogues and Social Workers

Background of the Training and Participants:

• This professional training comprised three modules, each lasting five days.

• The diverse participants included therapists, pedagogues, social workers, and body-oriented practitioners, with approximately 25 individuals attending the course.

• Their motivation stemmed from self-driven interest, as this was a paid educational opportunity.

Theme and Workshop Goals:

The overarching theme centered on self-regulation.

• The focused emphasis was on acquiring skills to facilitate sessions with children based on the principles of Kids in Tune, Somatic Experiencing, and other somatic modalities.

• The primary objectives were to equip attendees with the necessary competencies to effectively guide children through self-regulation processes, drawing upon established methodologies and embodied practices.

5.5.2 Application and Logical Structure for Teaching the Course

For this round of refinement, the authors employed an inductive approach, emphasizing the observation and facilitation process of a child's original intentions and thought processes. The inductive process, as noted by Trochim (2006), involves moving from specific observations to broader generalizations and theories, detecting patterns and regularities in individual instances before working toward increasingly abstract concepts. This bottom-up logic contrasts with the deductive approach of starting with general principles. The strength of the inductive process lies in its ability to generate new insights grounded in empirical data, uncovering novel concepts without being constrained by pre-existing frameworks (Trochim, 2006) and bringing the "Idea" thread to the center aligned with principles championed by pioneers like Maria Montessori, Open Education (Miller, 1976), and the Reggio Emilia Approach (Edwards et al., 1998; Cadwell, 2003), which emphasized child-centered learning, personalized curricula, and intrinsic motivation. These methodologies shared a common goal of nurturing children's curiosity and supporting their self-discovery journeys (Miller, 1988).

5.5.3 Application and Logical Structure of the Method

Initially, the course introduced the problem of emotional dysregulation among children and the high workload for professionals. Bringing the idea as a central theme was well-received, with participants providing feedback about setbacks when a child's thought process and ideas are not followed. The authors gave the figure of “caring for an idea” similar to “caring for a seed or plant”, requiring attention throughout the process.

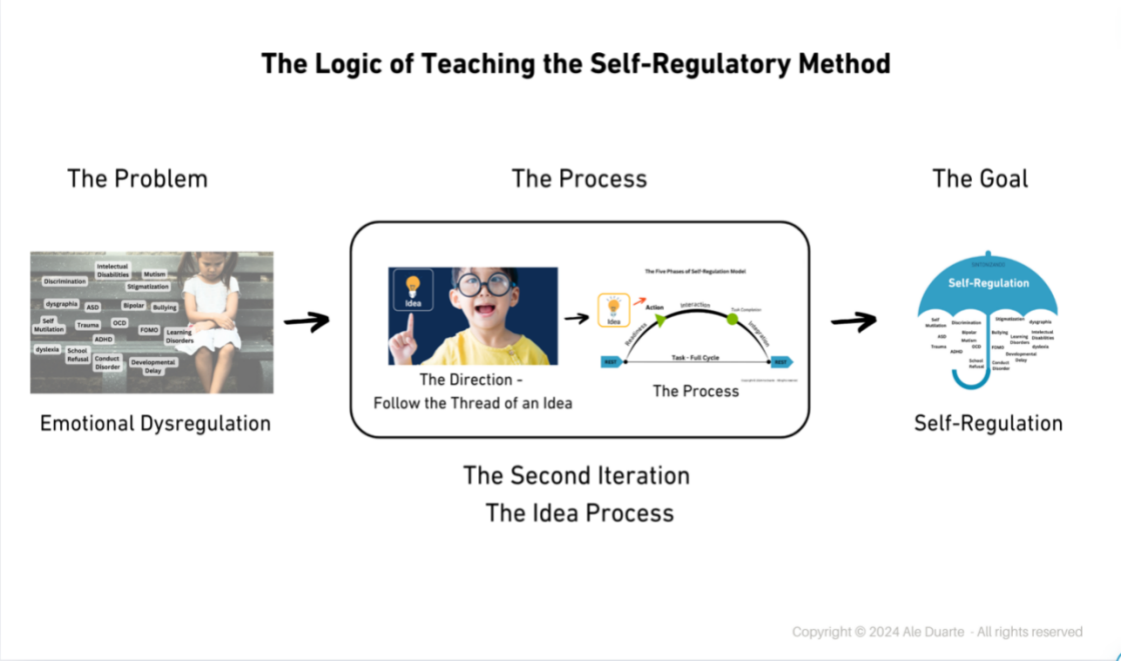


Figure 12: The logic of teaching the Self-Regulatory method.

• One participant shared their children's difficulties with lack of attention or overstructured days. Others were interested in the arc of construction that unfolds after an idea appears. From the authors' perspective, the flow was motivational, allowing a back-and-forth thought construction and understanding.

• However, the class flow stalled when including principles and facilitation methods, with silence and puzzled faces, until resistance emerged. A participant stated it was too vague to relate garden principles to real classroom and office situations.

• The authors corrected the course, relating how a seed undergoes an arc of beginning, middle, and end, making direct correlations with the five phases and leaving aside principles considered fundamental for self-regulatory facilitation.

• In this new round of teaching, the author follows the same three steps. Adjustments were made to the process with the central observation of the thread of an “idea” within the body of the Five Phases of the Self-Regulation Model. The metaphor of the plant was kept, and the 6-disciplines were excluded to reduce the cluttering of the “moving parts” during the teaching and learning process. Figure 12. The integration of the metaphor of the plant and the process of the Five Phases of Self-Regulation Model represented the evolution by building upon the foundation of its predecessor stages, progressing from less complex to more complex iterations, Ilya Prigogine (1997) and Stuart Kauffman (1995).

5.5.4 Personal Take and Feedback:

This event demonstrated that the garden teachings created friction and resistance, even with graphic representation. The way forward was not mastering a domain's skill set but showing the seed's experience through phases, following a first-person perspective. Shifting from teaching self-regulation disciplines to allowing discussion about idea stages compared to plant stages was the necessary adjustment to bring participants together. The authors excluded the discipline graphics, seeing the fusion of the idea and the five phases model arc.

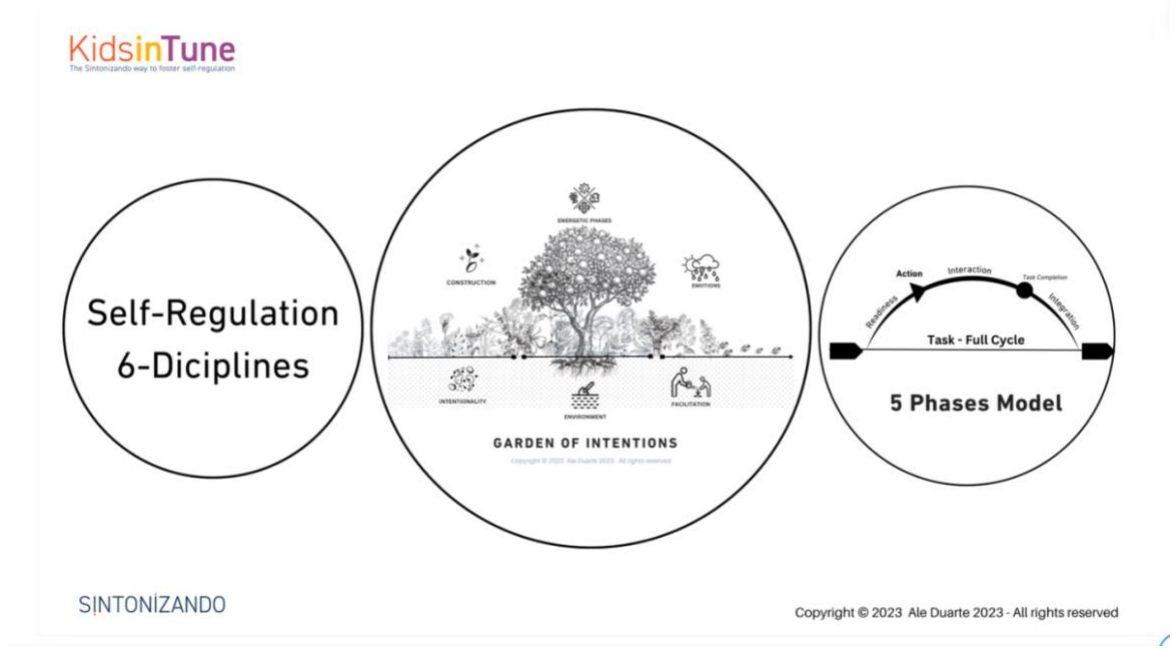


Figure 13: 6 Disciplines of Self- Regulation demonstrate to be less effective into the application and difficult to teach to professionals that are demanded agility and efficiency in their practices.

5.5.5 Validation and Assessment of the Process Moment to Moment:

Initially, the course introduced the problem and complexity of the current situation with the rise of emotional dysregulation among children and the high workload for professionals to engage with. Bringing the idea as a central part of the theme was well-received and understood by the participants, who provided feedback about their clients and the setbacks when a child is not heard or followed in their thought process and ideas. Figure 14. The authors gave the Figure that caring for an idea is similar to caring for a seed or a plant,

requiring attention and care throughout the process. One participant raised their hand and shared the difficulties their children face when there is a lack of attention or an overstructured day. Others were interested in the arc of construction that unfolds after an idea appears. From the authors' perspective, the flow was motivational, allowing for a back-and-forth flow of thought construction and understanding. However, when including the principles and how to facilitate, the class flow stalled again, with the authors observing the same silence and puzzled faces, until there was resistance to continue with the topic. One participant stated that it was too vague to talk about the principles of a garden and expect to relate it to real-life situations in classrooms and offices. The authors immediately corrected the course of the teaching and started to relate how a seed goes through an arc of beginning, middle, and end, making direct correlations with the five phases and leaving aside the principles they considered fundamental for the facilitation of a self-regulatory process.

5.5.6 Personal Take and Feedback:

This was another demonstration that the teachings of the garden were creating more friction and resistance, even with a graphic representation.

• The authors realized that the way forward was not through mastering a domain's skill set but rather showing the experience of a seed through the phases, as if following the first-person perspective of that seed or plant.

• Shifting the angle from teaching the skills of a discipline for self-regulation to allowing discussion where participants could talk about the stages of their ideas in comparison with the stages of plants was the necessary adjustment to bring the participants to the same table.

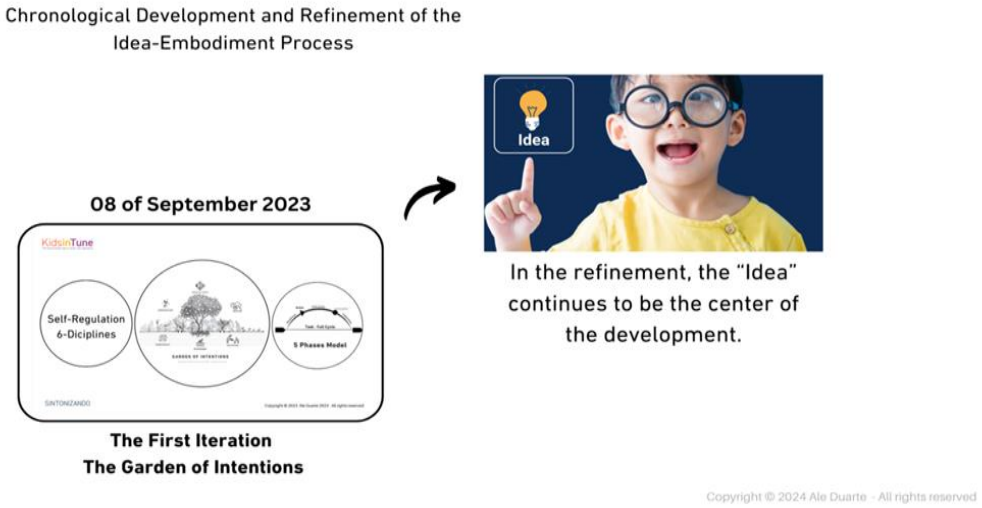


Figure 14: Chronological Development and Refinement of Idea—Embodiment Process. The concept of "idea" was addressed simply to serve as a generic element to teach the principles of the Five Phases SR Model.

• With that, the authors excluded the graphical representation of the disciplines and saw the fusion of the idea and the arc of the five phases model. Figure 15.

This was another demonstration that the teachings of the garden were creating more friction and resistance, even with a graphic representation. The authors realized that the way forward was not through mastering a domain's skill set but rather showing the experience of a seed through the phases, as if following the first-person perspective of that seed or plant. Shifting the angle from teaching the skills of a discipline for self-regulation to allowing discussion where participants could talk about the stages of their ideas in comparison with the stages of plants was the necessary adjustment to bring the participants to the same table. With that, the authors excluded the graphical representation of the disciplines and saw the fusion of the idea and the arc of the five phases model.

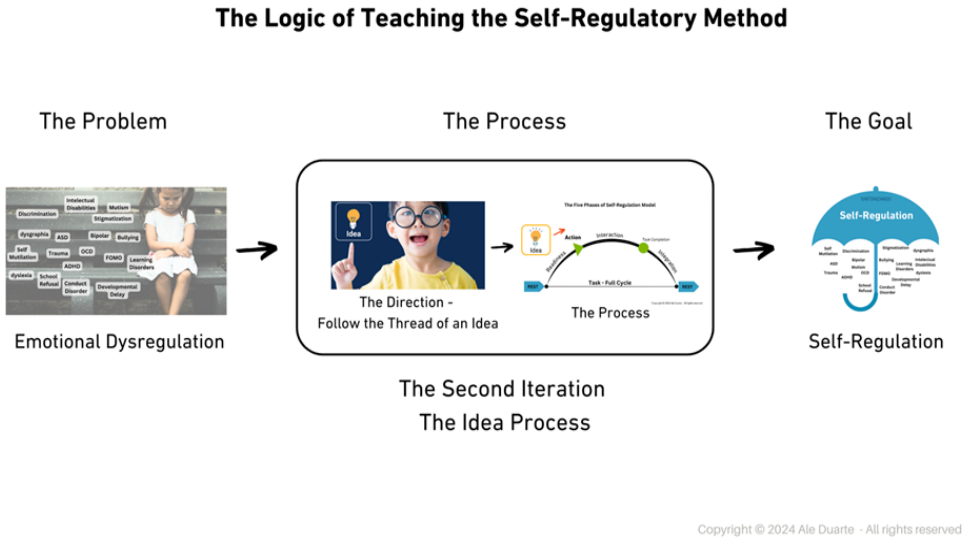


Figure 15: The five Phases of Self- Regulation Model. The integration of the concept of the "idea" and observation of its evolution through the phases of the model.

5.6 Stage 3 – Develop (2,9,16,23 November 2023)

Somatic Tracking Workshop – Designed for Somatic Therapists

5.6.1Background and Participants:

• This training was tailored for Somatic Experiencing Practitioners who wanted to incorporate embodiment techniques into their practice. Somatic Experiencing (SE) is a body-oriented approach to healing trauma and stress disorders developed by Dr. Peter Levine (Levine, 1997). This modality is rooted in the understanding that trauma is not merely a psychological phenomenon but also has profound physiological effects on the body (Payne et al., 2015). The Kids in Tune inherited some of the principles of Somatic Experiencing, making it a familiar language for the participants.

Motivation for Taking the Workshop:

• The participants were self-motivated to attend as it was a paid course. Since the Somatic Experiencing training was designed primarily for professionals working with adults, they found it challenging to apply it to children. They needed resources and practices to apply Somatic Experiencing with children. As Vogel (2005) notes, somatic tracking is a vital tool for helping children become aware of their internal states, thus aiding in emotional regulation and self-awareness.

5.6.2 Theme and Workshop Goals:

Course Objectives:

1. Introduce Somatic Experiencing and tracking in child therapy.
2. Demystify awareness-based approaches for children, recognizing their inclination towards play over therapy.
3. Teach the essentials of tracking, emphasizing creating energetic environments where children naturally express readiness and action through play.
4. Build confidence in facilitating children's engagement in activities, ensuring readiness and successful integration.

5.6.3 Application and Logical Structure of the Teaching:

• In the previous workshop, the authors realized that the integration of the growing seed or plant metaphor followed the Five Phases Model. With that, there was a need to define the observations in which this idea, or in the metaphor, the plant would grow. When a child or an adult proposes an activity, it becomes what the author refers to as the "unity of observation" from the perspective of facilitation.

• This unity of observation is characterized by the emergence of an idea, activity, or project that possesses key constraints, such as having a clear outcome, a beginning, middle, and end, being goal-directed, having a simple set of rules, a relational dynamic of challenges and successes, and creating conditions for the gradual shaping of skills, understanding, and self-awareness (Fischer, 1980).

• The facilitators of this workshop, in the author's teaching framework, need to coordinate the setting and circumstance the child is in (task) and the moment in which the facilitator will ask the child to pause and observe their felt sense and inner experience, or orientation to the outer world.

Somatic tracking is a vital tool for helping children become aware of their internal states, thus aiding in emotional regulation and self-awareness (Vogel, 2005). The goal was to help participants clearly define the task using the Five Phases Model, determine whether the child is in the early experiences of readiness, and

identify the favorable moment to pause and pay attention to embodied self-awareness. As seen in Figure 16.

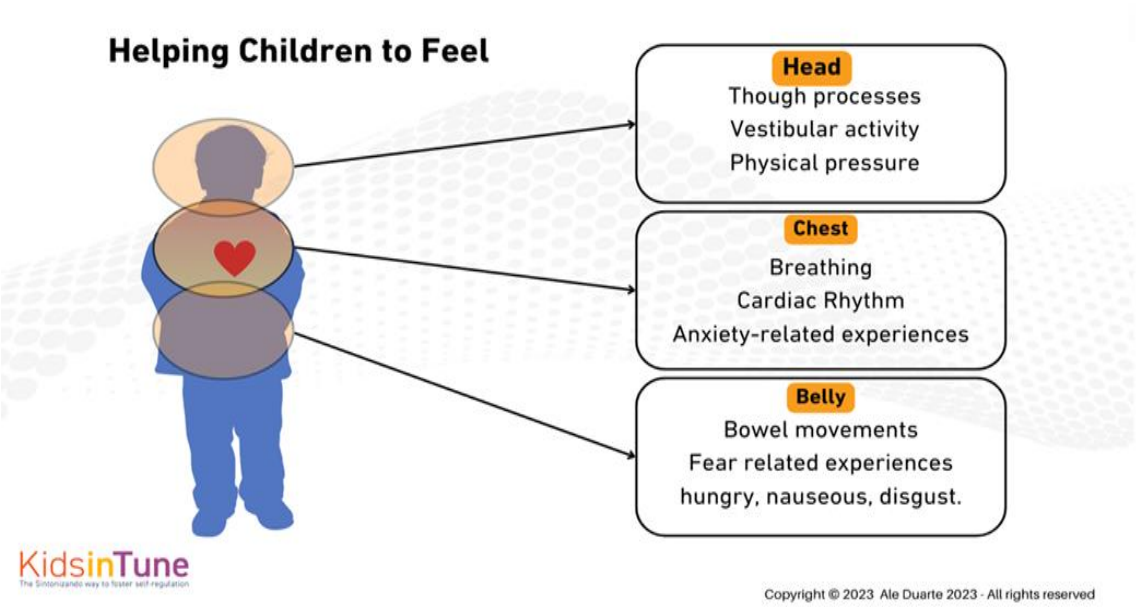


Figure 16: Helping Children to Feel - Head, Chest, and Belly.

5.6.4 Validation and Assessment of the Process Moment to Moment:

• The authors noticed the ease of teaching the class, bringing light to the important principle of setting the task and finding the most appropriate timing for taking the child to pause and orient or pay attention to their inner experience. The high attendance, participation in breakout rooms, and sharing of relevant experiences applied after each workshop session also spoke about the motivation and relevance of the teaching. Feedback and messages along the course said that bringing children back to their bodily sensations became more efficient and less distracting during the session, reducing the friction of reasons why this is important for the child's progression.

5.6.5 Personal Take and Feedback:

• With the insight to observe and define the task that will be monitored, the participants gained a layer of organization or a stable ground to apply the embodied techniques learned in their Somatic Experiencing training. There was also direct feedback highlighting that it became easy to see the state of readiness when the context of the interaction was established or identified.

5.7 Stage- 4 Prototyping (21 January 2024)

The Power of YOU Idea Workshop - Coaches, Therapists, Pedagogues, and General Public – 5.7.1 Brazil Background and Characteristics of the participants:

- This 6-hour paid workshop was the first full application of the Idea-Embodiment Process, catered to coaches, therapists, and other professionals. The author presented the concepts of the idea, applied peer exchange dynamics, embodied session exchanges, and rounds of reflection.

Motivation for Taking the Workshop:

- The group was highly motivated since it was a brand-new program, and the subject was intriguing, with a subliminal understanding that it would be designed to bring new ideas rather than investigate already explored or intended ideas.

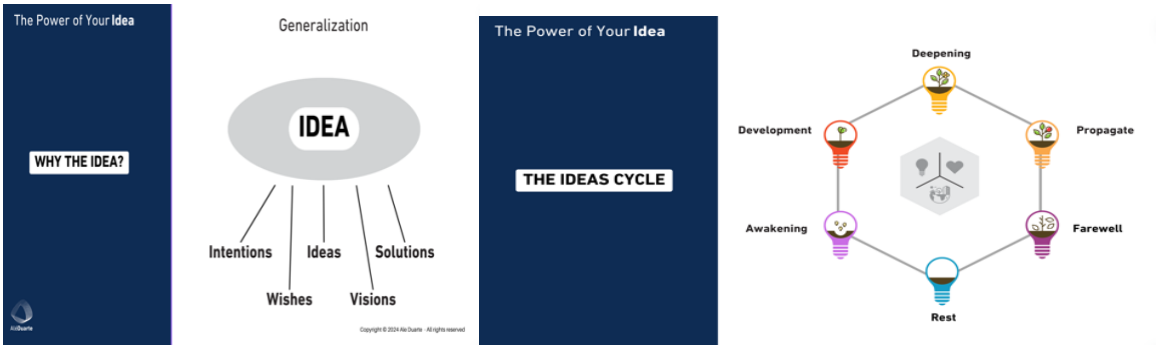
5.7.2 Theme and Workshop Goals:

By following the thread of idea development with intention and fidelity, we can empower adults and children to become conscious of their creative processes, to complete unfinished cycles, and to integrate the valuable lessons learned along the way. This holistic approach not only restores the dreams and wishes that may have been dampened by the pandemic but also equips children with the tools to honor and nurture their emerging ideas, ensuring their creative potential continues to blossom.

5.7.3 Application and Logical Structure of the Methodology:

The methodology followed a foundational step of defining the task by understanding its main idea or intention. This primary idea often emerges as a generalization of various intentions, desires, problem-solving efforts, visions, and other needs. The act of distilling these diverse elements into a cohesive "idea" is a crucial step in the process (Brown, 2009; Stickdorn et al., 2018).

Once the main idea is identified, it embarks on a transformative journey through the Idea-Embodiment framework. This framework provides a structured terrain for clarifying, refining, and processing the initial idea, allowing it to evolve and take shape (Duarte, 2023). The slides illustrate this principle of generalization, where various intentions, desires, solutions, and visions converge into a unified concept – the "idea" itself. Figures 17 and 18.



Figures 17 and 18: The Idea-Embodiment Process.

5.7.4 Feedback and Assessment - Moment-to-Moment:

- Because the context was to discuss the theme of “idea," the author noticed that all participants were on topic and brought relevant information, fully participating in the peer-to-peer exchange and small session dynamics. The interest was high, and there was a great experience of insights and new knowledge about themselves and their way of operating.
- For instance, an experienced practitioner who works in a larger company suddenly realized that she had always been involved with big ideas due to the nature of her work and the reach of her

company, but she felt touched when she realized that she was minimizing her small, personal ideas that brought her joy.

5.7.5 Personal Take and Feedback:

The author found this a relevant experience and an appropriate setting to deliver the first iteration of the Idea- Embodiment process. It was also important to test the concepts, slides, Figures, and exercises. The experience exceeded the expectations of the organizer, facilitator, and participants.

5.8 Stage 5- Delivery (Application) (25-29 January 2024)

Therapists, Pedagogues, and Social Workers - Brazil

5.8.1 Background and Characteristics of the Participants:

- This workshop was designed for Brazilian therapists, pedagogues, and social workers. It was a paid event, also streamed through the Zoom platform, with participation from five countries. It was part of the Kids in Tune training and incorporated the Idea-Embodiment Process using the full methodology and materials, including handouts, presentations, banners, and a walk-in environment for session exchanges.

5.8.2 Motivation for Taking the Workshop:

- The group was self-motivated and engaged in children's well-being in their offices, institutions, and homes.

Theme and Workshop Goals:

- The goal was to facilitate the self-regulatory process and elevate children's self-esteem by observing their ideas and discovering the patterns that hinder their creative processes.
- The overarching theme centered on self-regulation and the construction of ideas and wishes.
- The focused emphasis was on acquiring skills to facilitate sessions with children based on the principles of Kids in Tune and Somatic Experiencing.
- The primary objectives were to equip attendees with the necessary competencies to effectively guide children through the constructive process without losing focus on self-regulation.

5.8.3 Application and Logical Structure of the Methodology:

- The author used the structure from the "Power of YOUR Idea" workshop but took more time to cover the principles. In this framework, we can track and identify all the elements implicit in this process of refinement: the idea as a central element, the cycle of a plant as the scaffolding metaphor, and the Five Phases of the SF Model as the process to facilitate the self-regulates seen in Figure 19.
- An addition to the program, in relation to the previous one, was the inclusion of props such as banners and handouts for participants to directly engage and appropriate their discoveries.

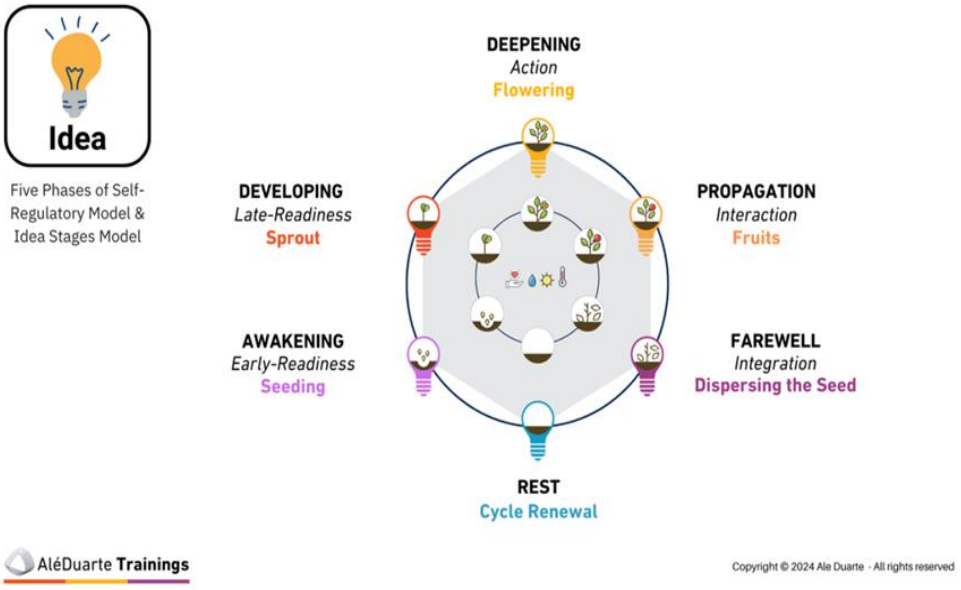


Figure 19: The Power of your Idea framework

5.8.4 Experience and Assessment - Moment to Moment:

- The authors witnessed the value of following each other's ideas when constructing or laying out their projects step-by-step. Although the goal was not to create something during the class and observe everyone's constructive pattern, the exchange of creative experiences described how old ideas were created and the struggle or joy of making them happen.
- The observation of the construction process was inspired by the knowledge and principles of Maker Education, which are centered around the idea that students learn best by doing, creating, and sharing (Hatch, 2014). In Makerspace, students are encouraged to take ownership of their learning, pursue their interests, and develop a growth mindset. The role of the teacher shifts from an instructor to a facilitator, guiding students through the creative process and providing support as needed.
- Maker Education, also known as Maker Pedagogy or Makerspaces, is an educational approach that emphasizes hands-on, project-based learning experiences (Martinez & Stager, 2013). This methodology encourages students to design, create, and innovate using a variety of tools and materials, often incorporating elements of science, technology, engineering, art, and mathematics (STEAM) (Halverson & Sheridan, 2014).

5.8.5 Personal Take and Feedback:

- The author was surprised by the efficiency of teaching the subject of embodiment since the movement from one banner to another, and the reflection with small groups, created an atmosphere of trust and time, in which participants could stay in front of a banner and, at their will, move to another to certify or check what internal experience was involved.
- *From the earlier version of the Five Phases of Self-Regulation Model, the subsequential changes comprised three main rounds of application and refinement. Culminating in the Idea-Embodiment Process framework on the 29 of January of 2024. As seen in Figure 20.*

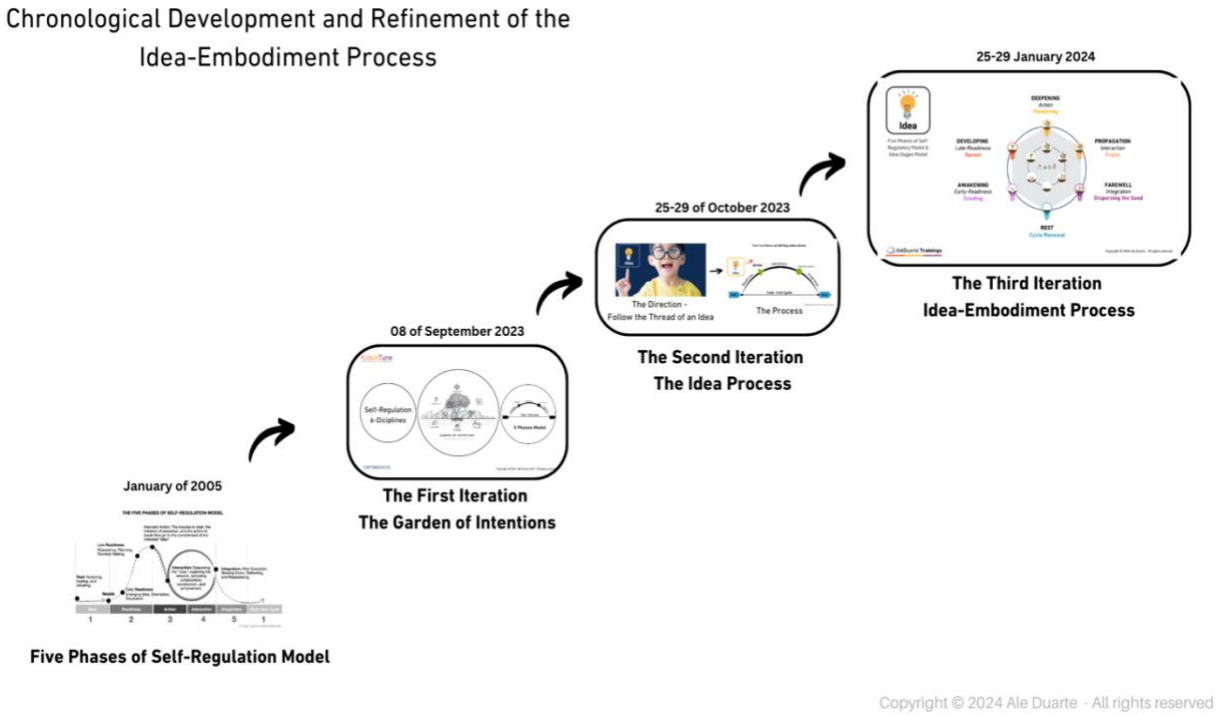


Figure 20: Chronological Development and Refinement of the Idea- Embodiment Process.

5.8.6 Idea-Embodiment Facilitation Experience

Guiding children to recall their desires and ideas left behind during the pandemic can help them integrate these experiences and find new meanings that fit their current reality. In this case, structuring the environment with panels divided into the phases of the idea-embodiment process could be beneficial.

Inspired by interactive museums such as Tiedekeskus Soppi in Helsinki, Images 1 and 2, the Children's Museum in Vienna, Images 3 and 4, and the Viktor Frankl Museum, also in Vienna, Images 5 and 6. These museums use relational timelines and structured processes to help people focus on parts of their story and create a space for them to talk about it.

For instance, to discuss ideas that were not implemented, they can walk to the panel that addresses the "Awakening" topic (the first stage of the idea-embodiment process) and talk about what ideas were in the awakening phase that they did not have the opportunity to discuss or carry on. With the help of other panels,

they would walk and further explore what it would be like if these ideas had progressed, discussing the following panels of development, deepening, propagation, farewell, and rest. This is a way to process and create movement within a memory and idea hidden in their Imagination.

By walking through this self-guided environment with interactive panels representing each phase of the idea-embodiment process, children and young people can relive and reconstruct "The Idea's Thread," giving voice to their old dreams and desires. Each panel would provide instructions and space to reflect, discuss, and process past ideas in a cognitive and bodily manner. By traversing this path, they can integrate these incomplete experiences into their current lives, finding new meanings and restoring the creative energy that may have been lost during the pandemic.

This self-guided, non-electronic, and engaging approach would allow children and young people to reconnect with their interrupted aspirations, validate their emotions, and find closure or renewal for their old dreams and ideas. By reconstructing "The Idea's Thread" through this panel environment, they can heal, grow, and start a new with a fresh perspective and reinvigorated energy.

Image 1 and 2 - Tiedekeskus Soppi in Helsinki (https://tiedekeskussoppi.fi/)

Image 3 and 4 – Children´s Museum, Vienna, Austria. (https://www.kindermuseum.at/jart/prj3/zoom/main.jart?j-j-url=/en)

Image 5 and 6 – Viktor Frankl Museum, Vienna, Austria.
(https://www.franklzentrum.org/museum/rundgang.html)

5.9 Idea-Embodiment Facilitation in São Paulo

São Paulo, Brazil, Idea-Embodiment Workshop from January 25 to 29, 2024. The photographs here illustrate the key stages of the process and the level of engagement and collaboration among participants. These images capture the essence of the Idea-Embodiment Process in action, showing participants deeply engaged in discussion before the Farewell banner, Image 7. Their expressions reflect a mix of contemplation and resolution as they explore the complex emotions and learnings associated with letting go of an idea and celebrating the creative journey. Images 8 and 9 provide an overview of the workshop space, with participants spread out across the various banners.

Image 7: Overview of the participants in action.

Image 8: Overview of the participants in action.

5.10 The Idea-Embodiment Process Differentiated from Design Thinking and Design Experience

The idea-embodiment process differs significantly from approaches like design thinking or design experience, which institutions like Stanford University have popularized. While these frameworks also aim to foster creative ideation and problem-solving, the Idea-Embodiment Process is distinguished by its deeper emphasis on the child's embodied self-awareness and the cyclical, organic nature of the creative process.

Unlike Design Thinking, which often follows a linear progression of empathize, define, ideate, prototype, and test, the Idea-embodiment Process acknowledges the inherent ebbs and flows of idea development. It recognizes that creativity is not a straightforward path, but rather a dynamic dance between inspiration, iteration, and integration (Fogel, 2013). The model's stages are designed to honor the child's emotional, sensory, and intuitive experiences, providing a supportive container for the natural oscillations of engagement, disengagement, and rediscovery that occur throughout the creative journey.

While Design Thinking strongly emphasizes empathy and understanding user needs, the Idea Stage Model prioritizes the child's embodied self-awareness and organic, cyclical nature of creativity from the outset. The Idea-embodiment Process' holistic approach to creative development prioritizes the child's emotional, physical, and psychological well-being alongside the realization of their ideas, discovering their unique way of creating and also the patterns that hinder them from growing their ideas, distinguishing it from the more solution- oriented nature of Design Thinking.

Furthermore, the Idea-embodiment Process' primary objective is not solely to arrive at a final solution or product, as often emphasized in Design Experience. Instead, the model aims to nurture the child's overall creative capacity, self-awareness, and sense of agency. By facilitating a deeper connection to the embodied self, the model empowers children to trust their intuition, embrace uncertainty, and find joy in the process of idea generation rather than fixating solely on the end result (Fogel, 2013).

This distinction in intention aligns with the principles of somatic psychology, which underscore the importance of cultivating self-awareness and embodied presence as a foundation for meaningful change and growth (Fogel, 2013). By incorporating these principles, the Idea Stage Model offers a more holistic and transformative approach to creative development, one that prioritizes the child's emotional, physical, and psychological well-being alongside the realization of their ideas.

Moreover, the Idea-embodiment Process' philosophical underpinnings draw from phenomenology, which emphasizes the importance of subjective experience and embodied knowledge (Da-Sein Thinking, 2021). This epistemological foundation further distinguishes the Idea Stage Model from Design Thinking, which tends to focus more on objective problem-solving and user-centered design.

Fostering creativity and nurturing the unique ideas of each child is a critical aspect of child development that is often overlooked. As educators and caregivers, we have the privilege and responsibility to create an environment that encourages children to explore, cultivate, and bring their ideas to life. The garden metaphor, a powerful tool rooted in our embodied experiences (Johnson, 2007), provides a framework for understanding the delicate process of nurturing children's ideas and helping them navigate the challenges that arise along the way.

5.11 Outcome of training in a nutshell

After the Facilitation of Cognitive and Bodily Processes of Ideas training, we conducted a questionnaire with participants to collect feedback and insights on the impact of this methodology. The qualitative data obtained highlights the multifaceted effects of this approach on professional development and client outcomes.

One of the central questions was: "How has the way you look at children in your sessions been impacted?". The responses demonstrate a significant shift in perspective, with participants reporting increased attentiveness, presence, and attunement to the subtleties of children's expressions, movements, and internal states. This enhanced awareness enabled the identification of opportune moments for interventions, sustaining or transforming children's idea development processes.

Another question addressed was: "Has the way you structure your sessions been enriched by marking the three defined stages (readiness, interactions, and integration) and having action and rest as an embedded phase?" The feedback indicates that structuring sessions into Readiness, Flow, and Integration brought greater clarity, security, and direction, allowing for increased attention to crucial moments and facilitating an appropriate pace for each child.

Participants were also asked: "Did you have a meaningful personal insight during this training that you'd like to share?". Several responses highlighted an embodied understanding of the value of time and patience in nurturing creative processes, embracing a more unhurried, present-focused approach.

When responding to "What skills or perspectives did you develop or enhance through this methodology?", participants cited the improvement of observation, perception, role separation, phase identification, self-regulation, and attention to children's cycles. They also reported an expansion of a holistic clinical perspective and the ability to avoid overwhelming expectations during sessions.

Finally, when asked "In what ways does the Facilitation of Cognitive and Bodily Processes of Ideas contribute to a more suitable environment?", the responses highlighted the creation of a safe and welcoming space that nurtures self-expression, intrinsic motivation, and children's holistic development. This environment is responsive and adaptive to each child's unique needs, cultivating resilience and a deeper connection to their authentic selves.

In summary, the data collected from the post-training questionnaire demonstrates the transformative impact of this methodology in enhancing therapeutic skills, broadening perspectives, and creating environments conducive to children's self-regulation, self-discovery, and holistic well-being.

6 RESULTS

Participants reported an expansion of their clinical perspectives, enabling them to consider the totality of a child's physical, mental, emotional, and spiritual aspects. This holistic view contributed to a deeper understanding of children's subjective experiences and idea cycles, informing more attuned and individualized interventions.

Moreover, the methodology equipped practitioners with frameworks for differentiating their roles and experiences from those of the children they work with. This role separation fostered a supportive yet non-intrusive stance, allowing children to take the lead while receiving appropriate guidance and containment.
While the specific applications and outcomes varied, a common thread emerged: the Facilitation of Cognitive and Bodily Processes of Ideas methodology empowered practitioners to create safe, supportive environments conducive to children's self-regulation, self-discovery, and holistic well-being. By honoring children's creative processes and embodied experiences, this approach fostered resilience, emotional intelligence, and a deeper connection to one's authentic self.

Table 4 summarizes the key themes that emerged from the qualitative interpretation of how participants' perspectives on working with children have been impacted:

Table 4. Themes about the impacts of the training on work with children.

Theme	***Description***
Increased attunement and present-moment awareness	Participants reported feeling more relaxed, present, and attuned to the subtleties of children's expressions, movements, and internal states.
Observation and differentiation	Participants developed an enhanced ability to observe and differentiate between children's desires, skills, and emotional states.

Respecting children's lead and ideas	Participants recognized the value in following children's lead, respecting their thought processes, and supporting the development of their ideas.
Nervous system sensitivity	Participants acknowledged the sensitivity of children's nervous systems and the need for a gentle, titrated approach when addressing conflict, stress, or dysregulation.
Trusting the process	Participants expressed increased confidence in trusting the therapeutic process, even when not directly addressing the presenting issue.
Playfulness and boundaries	The training reinforced the importance of incorporating playfulness into sessions while providing clear boundaries and structure when necessary.
Integration with existing practices	While some participants found it challenging to integrate the new perspectives with their existing therapeutic modalities, others described the training as providing an additional lens through which to view children's behaviors and self-regulation processes.

The following table 5 summarizing the key themes from the qualitative analysis of whether marking the 3 stages, the fourth iteration of the Five Phases of Self-Regulation Model of a task enriched the way participants structure their sessions:

Table 5. Themes about the impacts of facilitation effectiveness

Theme	***Description***
Clearer structure and sense of security	Explicitly marking the three stages provided a clearer structure and a sense of security, creating a meaningful flow and direction for sessions.

Increased attention to crucial moments	The three-stage model brought heightened attention to crucial moments within a session, such as creating readiness, allowing for natural flow, and facilitating integration.
Improved pacing and grounding	The model helped participants slow down, be more present, and ground themselves and their clients, ensuring proper orientation to readiness before moving into the flow.
Enhanced relaxation and confidence	The structure provided by the three stages contributed to participants feeling more relaxed, aware, and confident in their approach.
Integration with existing practices	While some already incorporated elements of the three stages, the explicit model provided a helpful framework for organizing and enriching existing practices.
Challenges in full integration	A few participants noted struggles with fully integrating the three stages into their practice or identifying readiness in different children. One mentioned finding the integration stage easier than others.

The following Table 6 summarizes the key themes that emerged from the qualitative interpretation of how participants' perspectives on working with children have been impacted:

Table 6. Themes about the impacts of the competence's improvements.

Theme	***Description***
Increased attunement and present-moment awareness	Participants reported feeling more relaxed, present, and attuned to the subtleties of children's expressions, movements, and internal states.

Observation and differentiation	Participants developed an enhanced ability to observe and differentiate between children's desires, skills, and emotional states.
Respecting children's lead and ideas	Participants recognized the value in following children's lead, respecting their thought processes, and supporting the development of their ideas.
Nervous system sensitivity	Participants acknowledged the sensitivity of children's nervous systems and the need for a gentle, titrated approach when addressing conflict, stress, or dysregulation.
Trusting the process	Participants expressed increased confidence in trusting the therapeutic process, even when not directly addressing the presenting issue.
Playfulness and boundaries	The training reinforced the importance of incorporating playfulness into sessions while providing clear boundaries and structure when necessary.
Integration with existing practices	While some participants found it challenging to integrate the new perspectives with their existing therapeutic modalities, others described the training as providing an additional lens through which to view children's behaviors and self-regulation processes.

The following Table 7 *summarizes the skills and perspectives developed or enhanced through this methodology:*

Table 7. Themes about the impacts and skills gains.

Skill/Perspective	***Description***
Economical Expression	Refinement in children's expressive perception, with economical use of gestures and words.
Enhanced Observation and Perception	Development of observation, perception, and work acilitation skills.
Attentiveness and Engagement	Ability to be attentive to developed activities, attune to proposals, and engage with the group.
Perception of Details and Intervention Opportunities	Refinement in perceiving details, identifying when the client's flow is interrupted, and opportunities for ntervention with the technique.
Awareness of "Before" the Idea	Opening of space to perceive the moment before an idea emerges.
Expansion of Clinical Perspective	Considerable expansion of clinical perspective, aiding in managing children and guiding families.
Child Empowerment	Recognition that allowing the child to follow their own idea is an empowering process, potentializing their action in the world.
Embodied Understanding of Time	Embodied understanding that time is a necessary ingredient for an idea's development, allowing for more patience and effective process orientation.
Identification of Phases and Self-Regulation	Ability to identify the phases of the process, utilizing self-regulation and co-regulation with the child as a resource.
Role Separation	Clear separation of what belongs to the facilitator and what belongs to the child (beside, behind, in front).

Perception of Intervention Moments	Perception and development of opportune moments to intervene in order to sustain or transform an idea.
Attention to Children's Cycles	Attentive look at children's cycles and, above all, at the little ones' ideas that lose strength in alienating routines or inattentive parenting.
Presence and Holistic Consideration	Ability to be more attentive to the present phenomenon, maintaining focus and interest, considering the totality of being in its physical, mental, emotional, and spiritual aspects.
Avoiding Overloading the Session	Avoiding expectations that may overload the session dynamics, being sensitive to contact with the person.

7. REFLECTIONS

The findings from these initial trainings provide valuable insights into how the Five Phases of Self-Regulation Model can be structured and presented more effectively for professionals attending sessions conducted by Alé Duarte Somatic Trainings. The use of the three stages of a task (Hold, Flow, Slow) as foundational simplification of the model has shown promise in improving clarity, security, and intentionality in session facilitation, enabling professionals to focus on crucial moments and respond to children's unique needs.

Furthermore, this reflection highlights the potential of the Five Phases of Self-Regulation Model, integrated and combined with the principles of the Idea-Embodiment Process, to support professionals in fostering children's emotional regulation, self-discovery, and holistic well-being, particularly in the post-pandemic era. Creating safe spaces for children to explore their ideas, process experiences, and develop self-awareness can facilitate healing, resilience, and a deeper connection to their authentic selves.

The findings regarding the Idea-Embodiment Process suggest that presenting it in a structured, relatable, and experiential manner, coupled with ample resources and guidance, can enhance its accessibility and ease of implementation across diverse settings. Participants appreciated the universality of the "idea" concept, which allowed them to connect the methodology with their clients' experiences and creative processes.

However, this work is an ongoing reflection and refinement process. The vision is to develop further and enhance the Five Phases of Self-Regulation Model and the Idea-Embodiment Process, integrating the insights and feedback gathered from these initial trainings into the train-the-trainer program of Alé Duarte Somatic Trainings. By equipping more professionals with these methodologies, the company aims to support their efforts in fostering children's emotional regulation, self-discovery, and holistic well-being more effectively with the use of interactive laboratory and ambassador programs using a streamlined approach to cognitive and embodied practices.

Continued research, collaboration, and implementation across various contexts will be crucial in validating and refining these methodologies, ensuring their relevance and adaptability to the evolving needs of professionals and the children they serve. This iterative process of reflection, refinement, and dissemination

represents a commitment to ongoing growth and improvement, ultimately benefiting the well-being of children and the professionals dedicated to supporting their development.

REFRENCES

Bambozzi, L., Campos, L. and Duarte, A. (2017) O gabinete de alice: Instalação imersiva. São Paulo, SP: Caixa Cultural São Paulo.

Bar-On, R. (2006). The Bar-On model of emotional-social intelligence (ESI). Psicothema, 18, 13-25.

Baumeister, R. F., & Vohs, K. D. (Eds.). (2004). Handbook of self-regulation: Research, theory, and applications. Guilford Press.

Blikstein, P. (2013). Digital fabrication and 'making' in education: The democratization of invention. In J. Walter

Borgo, A., & Terzopoulos, D. (2020). The Complexity Gap: Enabling Interactive Agents to Complement Humans' Operational Abilities. ArXiv, abs/2010.08956.

Brown, T. (2009). Change by design: How design thinking transforms organizations and inspires innovation. HarperBusiness.

Cadwell, L. B. (2003). Bringing Learning to Life: The Reggio Approach to Early Childhood Education. New York, NY: Teachers College Press.

Carroll, L. (1865). Alice's Adventures in Wonderland. Macmillan.

Cellini, N., Canale, N., Mioni, G., & Costa, S. (2020). Changes in sleep pattern, sense of time and digital media use during COVID-19 lockdown in Italy. *Journal of sleep research*, *29*(4), e13074.

Chamovitz, D. (2012). What a plant knows: A field guide to the senses. Scientific American/Farrar, Straus and Giroux.

Collaborative for Academic, Social, and Emotional Learning (CASEL). (2013). Effective social and emotional learning programs: Preschool and elementary school edition.

Creswell, J. W. (2013). Qualitative inquiry and research design: Choosing among five approaches (3rd ed.).

Design Council. (2005). The design process: What is the double diamond?. https://www.designcouncil.org.uk/news-opinion/design-process-what-double-diamond

Duarte, A. (2015). The five phases of the self-regulatory cycle: A framework for understanding and supporting self-regulation. Unpublished manuscript.

Duarte, A. (2020). The Idea-Embodiment process: A somatic approach to fostering self-regulation and creativity in children. Unpublished manuscript.

Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. Child Development, 82(1), 405-432.

Edwards, C. P., Gandini, L., & Forman, G. E. (1998). The Hundred Languages of Children: The Reggio Emilia Approach--Advanced Reflections. Westport, CT: Ablex Publishing.

Fischer, K. W. (1980). A theory of cognitive development: The control and construction of hierarchies of skills. Psychological Review, 87(6), 477-531.

Fogel, A. (2009). The psychophysiology of self-awareness: Rediscovering the lost art of body sense. WW Norton & Company.

Fogel, A. (2011). Embodied awareness: Neither implicit nor explicit, and not necessarily nonverbal. Child Development Perspectives, 5(3), 183-186.

Fogel, A. (2013). Body sense: The science and practice of embodied self-awareness. WW Norton & Company.

Fogel, A. (2013). Body sense: The science and practice of embodied self-awareness. WW Norton & Company.

Goleman, D. (1995). Emotional intelligence: Why it can matter more than IQ. Bantam Books.

Goleman, D. (2001). Emotional intelligence: Issues in paradigm building. In C. Cherniss & D. Goleman (Eds.), The emotionally intelligent workplace (pp. 13-26). Jossey-Bass.

Goleman, D., Boyatzis, R. E., & McKee, A. (2013). Primal leadership: Unleashing the power of emotional intelligence. Harvard Business Press.

Guilford Press.

Gupte, A., & Mumper, R. J. (2007). Copper chelation by D-penicillamine generates reactive oxygen species that are cytotoxic to human leukemia and breast cancer cells. *Free Radical Biology and*

Halverson, E. R., & Sheridan, K. M. (2014). The maker movement in education. Harvard Educational Review, 84(4), 495-504.

Hatch, M. (2014). The maker movement manifesto: Rules for innovation in the new world of crafters, hackers, and tinkerers. New York, NY: McGraw-Hill Education.

Herrmann & C. Büching (Eds.), FabLabs: Of machines, makers and inventors (pp. 1-21). Transcript Publishers.

Johnson, M. (1987). The body in the mind: The bodily basis of meaning, imagination, and reason.

Kauffman, S. A. (1995). At home in the universe: The search for laws of self-organization and complexity. Oxford University Press.

Koffka, K. (1935). Principles of Gestalt psychology. Harcourt, Brace & World.

Kruuk, H. (1972). The spotted hyena: A study of predation and social behavior. University of Chicago Press.

Lakoff, G., & Johnson, M. (1980). Metaphors we live by. University of Chicago Press.

Levine, P. A. (1997). Waking the tiger: Healing trauma. Berkeley, CA: North Atlantic Books.

Levine, P. A. (1997). Waking the tiger: Healing trauma. North Atlantic Books.

Levine, P. A. (1997). Waking the tiger: Healing trauma. North Atlantic Books.

Levine, P. A. (2010). In an unspoken voice: How the body releases trauma and restores goodness. North Atlantic Books.

Levine, P. A., & Kline, M. (2007). Trauma through a child's eyes: Awakening the ordinary miracle of healing.

Martinez, S. L., & Stager, G. (2013). Invent to learn: Making, tinkering, and engineering in the classroom.

Mayer, J. D., & Salovey, P. (1990). Emotional intelligence. Imagination, Cognition and Personality, 9(3), 185-211.

Mayer, J. D., Roberts, R. D., & Barsade, S. G. (2008). Human abilities: Emotional intelligence. Annual Review of Psychology, 59, 507-536. *Medicine*, *43*(9), 1271-1278.

Miller, D. (2021). Business made simple: 60 days to master leadership, sales, marketing, execution and more. HarperCollins Leadership.

Miller, J. P. (1988). The Holistic Curriculum. Toronto, ON: Ontario Institute for Studies in Education Press.

Miller, R. (1976). Open Education: A Sourcebook. Stanford, CA: ERIC Clearinghouse on Media and

Moisala, T., & Pasqualetto, E. (2021). Direct limits of infinite-dimensional Carnot groups. *arXiv preprint arXiv:2101.03979*.

Nguyen, D. J., & Larson, J. B. (2015). Don't forget about the body: Exploring the curricular possibilities of embodied pedagogy. Innovative Higher Education, 40(4), 331-344.North Atlantic Books.

Ogden, P., Minton, K., & Pain, C. (2006). Trauma and the body: A sensorimotor approach to psychotherapy. WW Norton & Company.

Patton, M. Q. (2015). Qualitative research & evaluation methods: Integrating theory and practice (4th ed.).

Payne, P., Levine, P. A., & Crane-Godreau, M. A. (2015). Somatic experiencing: Using interoception and proprioception as core elements of trauma therapy. Frontiers in Psychology, 6, 93.

Porges, S. W. (2011). The polyvagal theory: Neurophysiological foundations of emotions, attachment, communication, and self-regulation. W. W. Norton & Company.

Prigogine, I. (1997). The end of certainty. The Free Press.

Rossen, E., & Hull, R. (2013). Supporting and educating traumatized students: A guide for school-based professionals. Oxford University Press. Sage Publications.

Siegel, D. J. (2012). The developing mind: How relationships and the brain interact to shape who we are.

Simon, H. A. (1996). The sciences of the artificial (3rd ed.). MIT Press.

Stake, R. E. (1995). The art of case study research. Sage Publications.

Stickdorn, M., Hormess, M. E., Lawrence, A., & Schneider, J. (2018). This is service design doing: Applying service design thinking in the real world. O'Reilly Media. Technology. Torrance, CA: Constructing Modern Knowledge Press.

Trochim, W. M. K. (2006). Deduction & induction. Research Methods Knowledge Base. https://www.socialresearchmethods.net/kb/dedind.php University of Chicago Press.

Van der Kolk, B. A. (2014). The body keeps the score: Brain, mind, and body in the healing of trauma.

Vogel, A. (2005). Somatic Experiencing: A tool for children? In A. Harthill (Ed.), Diverse Somatic Perspectives: Working with Infants, Children and Youth (pp. 16-29). Berkeley, CA: North Atlantic Books.

Yin, R. K. (2018). Case study research and applications: Design and methods (6th ed.). Sage Publication

Zelazo, P. D., & Carlson, S. M. (2012). Hot and cool executive function in childhood and adolescence: Development and plasticity. Child Development Perspectives, 6(4), 354-360.

APPENDICES

Questionnaires used.

1. Question 1: How does looking through the lens of the four levels of disorganization add to your way of working?
2. Question 2: How has the way you look at children in your sessions been impacted?
3. Question 3: Has the way you structure your sessions been enriched by marking the 3 stages of a task? (Hold, Flow, Slow.)
4. Question 4: Did you gain meaningful personal insight during this training that you'd like to share?
5. Question 5: Is there anything else you want to share with me or my team?

The questionnaire comprised the following questions:

1. What is the relevance of working with idea processes in the currentcontext?
    a. ( ) Very relevant ( ) Relevant ( ) Not very relevant ( ) Irrelevant
2. How important is it to incorporate a somatic/bodily (embodiment)approach in traditionally more cognitive work?
    a. ( ) Very important ( ) Important ( ) Not very important ( ) Notimportant at all
3. How do you evaluate the influence of this approach on children's self-regulation abilities?
    a. ( ) Very positive ( ) Positive ( ) Negative ( ) Very negative
4. Describe a specific situation in which the Facilitation of Cognitive and Bodily Processes of Ideas contributed to a child's self-regulation. (Openresponse)
5. How did this approach influence your practice as a therapist or educator?
    a. ( ) Very positively ( ) Positively ( ) Did not influence ( ) Negatively
6. What skills or perspectives did you develop or improve through this methodology? (Open response)
7. What is the potential of this approach to create a more suitable environment for children's development?

a. ( ) High potential ( ) Moderate potential ( ) Low potential

8. How does the Facilitation of Cognitive and Bodily Processes of Ideas contribute to a more suitable environment? Comment on any perceptions, suggestions, or reflections on the topic. (Open response)