

**Making SPACE  
for Learning**

Jacana School for Autism  
March 2024

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The Australian Childhood Foundation acknowledges Aboriginal and Torres Strait Islander peoples as the traditional custodians and owners of this land and waters. We pay our respects to their Elders past and present and to the children who are their leaders of tomorrow. We acknowledge their history and living culture and the many thousands of years in which they have raised their children to be safe and strong.

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Australian Childhood Foundation acknowledges Aboriginal and Torres Strait Islander peoples as the Traditional Custodians of the land and waters across Australia in which we share. We pay our respects to Elders past and present and to the children who are leaders of tomorrow. We acknowledge the histories and living cultures and the many thousands of years in which Aboriginal and Torres Strait Islander peoples have raised their children to be safe and strong. We recognise and accept it is the oldest continuous living culture in the world and that their sovereignty has never been ceded.

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**MORNING** → **Part 1:**  
Introducing Neurosequential Brain Development, SPACE Framework and ACF Model of PRACTICE

*Morning Tea:*

**MIDDLE** → **Part 2:**  
The Brain, growing up and the impact of trauma

*Lunch Break:*

**AFTERNOON** → **Part 3:**  
SPACE and school audit

*Wrap Up & Evaluations*

**Finish:**

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## Success criteria

- **develop** an enhanced understanding of complex abuse related trauma, with a particular focus on its effects on the brain and body.
- **apply** frameworks for assessing and responding to the impact of trauma on students.
- **build** a toolkit of practice skills to respond, which promote recovery and healing for students.



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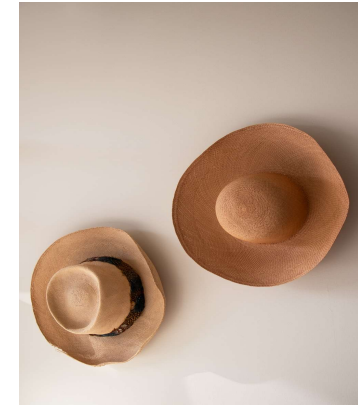
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## Safety

The content of this training can evoke strong emotions and may stir up personal experiences of trauma.

- Your emotional safety is important to us
- This training may evoke strong emotions and memories
- Please let someone know
- Take a break
- Your colleagues are here to support you.
- If you need support please ask the facilitator.



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## We acknowledge you....and what you bring....

- Knowledge
- Practice skills
- Lived Experience
- Passion
- Compassion
- A desire to bring about change



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## Reflective Question:

What makes the best kinds of learning spaces for children and young people?



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g recess

Jennifer Huck

Mrs. Cissy Simms  
Teacher

Shirley Randall  
Music

Consider a teacher who taught you, and had a positive influence on you...

What do you remember about them?

How did they make you feel?

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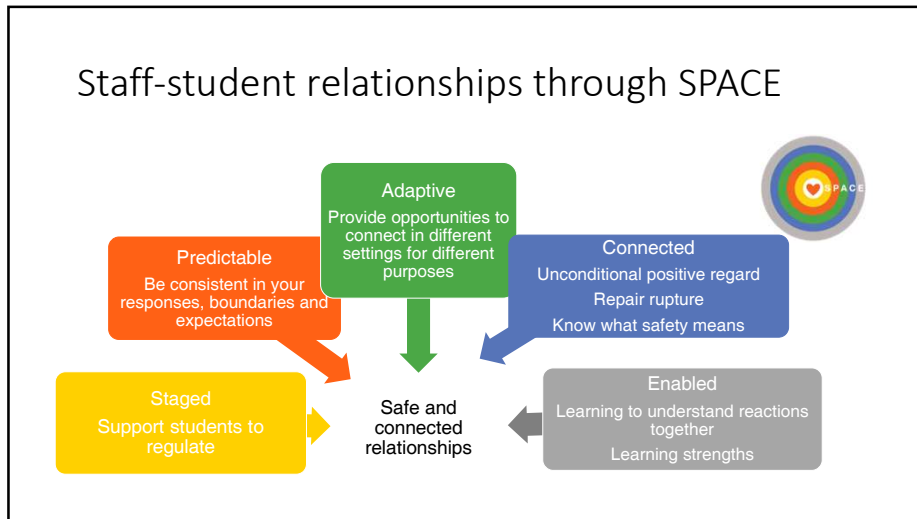
STAGED ADAPTIVE ENABLED

S P A C E

PREDICTABLE CONNECTED

SPACE is the central acronym of the program. It includes 5 domains to help educators better understand the needs of children who have experienced trauma and ways to support them in the educational setting.

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## Understanding Neurosequential Brain Development

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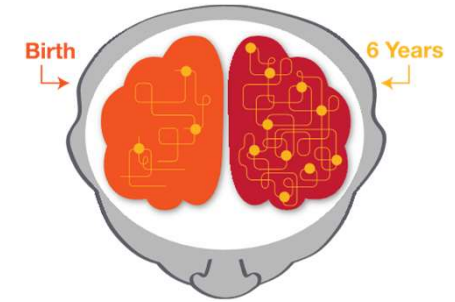
## Understanding the developing brain



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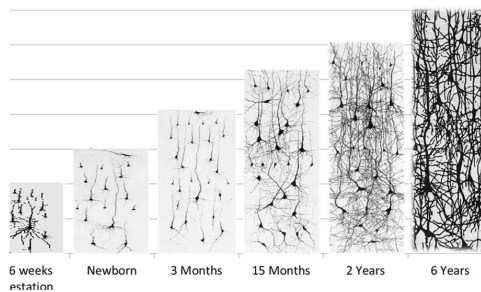
## Neuronal connections

- The neural system has the ability for one neuron to communicate with up to 10,000 other neurons
- The newborn brain has approximately 100 billion neurons



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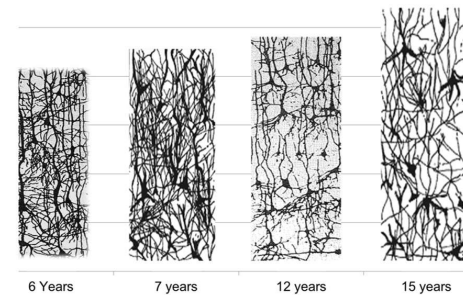
## Neuronal development



- Rapid growth occurs from birth to 6 years
- **Critical period** of development
- Healthy neuronal development occurs through **relationships, regulation, repetition**

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## Neuronal development



- Early years – period of **rapid growth**
- Followed by onset of puberty in which **synaptic pruning and formation of new neurons** occurs.

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## Brainstem - basic life functions

- Basic life functions
- First part of our brain to develop
- This is the most developed brain part at birth
- Responsible for our heart beat, breathing, sucking, temperature control, blood pressure



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## Cerebellum- movement and balance

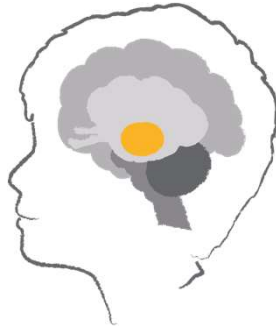
- Helps us to know where our body is in space
- Helps us with our posture and balance
- Helps us not to fall over and to control our movements
- Has its own connective pathways between the 2 halves- cerebellar vermis



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## Diencephalon - sorting & sending centre

- This area of the brain develops mainly after birth
- It sorts out messages coming into the brain and sends them
- It uses hormones to send signals to body
- Hormonal signals tell your body what it needs, eg. food, water, love



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## Limbic lobe- emotional gateway

- The part of the brain that helps us attach an emotion to an experience or memory
- This part of the brain is particularly involved with the emotions of fear and anger
- Also heavily involved in attachment processes
- This area develops mainly after birth



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## Amygdala & Hippocampus

### Amygdala

- the 'smoke detector' of the brain
- is mature at birth
- processes & stores implicit memories

### Hippocampus

- matures between 2-3yrs of age
- provides context to memories & embeds into long-term memory



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## Cerebral cortex- complex thinking

- The largest part of the brain
- Associated with higher brain function such as thought and action
- Examples of functions:
  - Reasoning
  - Logic
  - Judgement
  - Voluntary movement



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## The prefrontal cortex- executive function

- Responsible for executive functions, such as judgement, reasoning, and self awareness. Final part of the brain to reach maturity in late twenties to early 30s

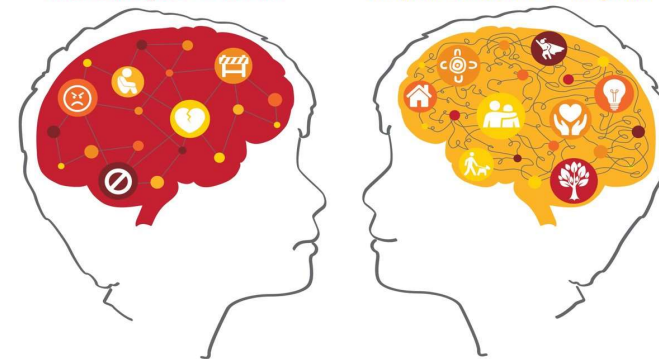


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## Early experiences shape the architecture of our brain

Threat and Neglect → Survival

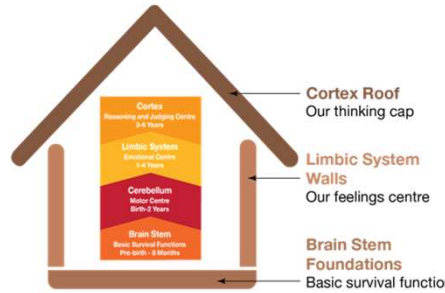
Safety and Connection → Integration



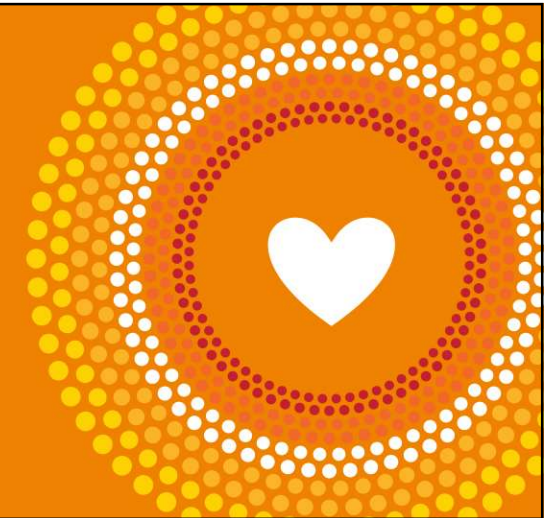
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### Staged- A brain development metaphor - My Brain House

- We build our brain from the bottom to the top- like building a house
- We reinforce parts of our house as we grow, with our roof continuing to develop into our mid 20s.
- A student who is calm and focused at school will likely be functioning with a strong standing brain house, from foundation to roof.
- In times of great stress bits of our brain house can come down and require repair. This is achievable and our brain house can stand strong again.



### Adolescent Brain



CGI

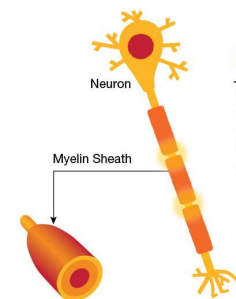
### The Prefrontal Cortex

Final part of the brain to reach maturity in one's mid to late twenties for females early thirties for males.

- self awareness
- reasoning and judgement
- foresight and anticipation
- focusing and sustaining attention
- planning organising and prioritising
- decision making
- reflecting
- enthusiasm, motivation and persistence
- impulse control
- working memory



### Pruning & myelination in the adolescent brain



#### Myelination

The second change is in myelination: in adolescence, it is not finished. The last part of the brain to myelinate is the frontal lobes. And myelination is not complete in the frontal lobes of the brain until around 18 to 20 or later.

Myelination on a neuron allows it to operate more efficiently.



**Slide 28**


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**CG1** A big thanks to Kim for updating this image for us :)  
Carolyn Grace, 28/09/2022



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# Trauma



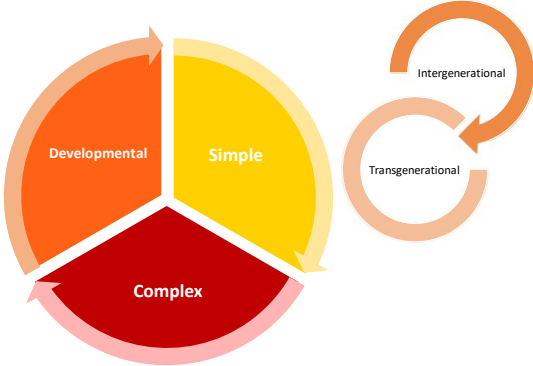
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## Defining trauma

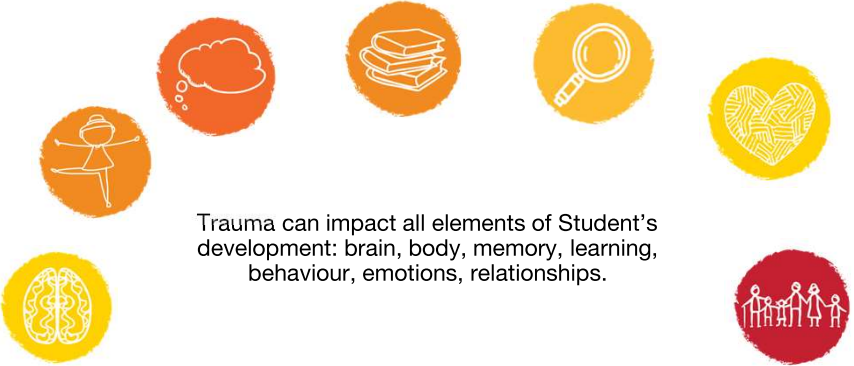
Any single, ongoing or cumulative experience which:

- is a response to a **perceived threat**, usually to survival
- **overwhelms** our capacity to cope
- feels/is **outside our control**
- often evokes a **physiological** and **psychological** set of responses based on fear or avoidance



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Trauma can impact all elements of Student's development: brain, body, memory, learning, behaviour, emotions, relationships.

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## Trauma and needs

The residue of trauma becomes an experience of unmet needs for children.

Children are left with needs that in the moment of hurt, pain and fear are unfulfilled. These needs stay activated ready for available relationships to respond to them, see them and gradually help them to be met.

These needs are physiological, developmental, and interpersonal, requiring relational investment and presence in order to be resolved

***"It is like they are on a loop hoping that their needs for safety, attention and validation that were not fulfilled will eventually find at least one relationship in the present that meets these needs consistently over time"*** Joe Tucci

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## Trauma and needs

Connected relationships can restore safety by understanding and addressing the needs that were not met.

For example:

An experience of being alone, can be met with accompaniment

An experience of fear met with protection, and

An experience of shame met with acceptance.

Needs can be identified within the domains of trauma and can be responded to by reparative experiences described in the Making SPACE for learning framework.

## Impacts on the 8 senses

1. **Visual**
2. **Auditory**
3. **Olfactory** (smell)
4. **Gustatory** (taste)
5. **Tactile System** (touch)
6. **Vestibular** (sense of head movement in space)
7. **Proprioceptive** (sensations from muscles and joints of body)
8. **Interoception** (awareness of basic primary functions – hunger, toileting, breathing)



## Interoception

Low levels of interoception means a reduced capacity to understand or connect with the body in ways that would enable them to self-regulate.

Interoceptive awareness may directly inform the capacity to regulate arousal states.

It is important to integrate the teaching of interoception activities into developing interoceptive awareness.



## Interoceptive strategies for young people



## Sensory needs

Many children and young people with ADHD and Autism also suffer from sensory processing disorder (SPD) making it difficult to process and act on information received from the senses.

Most children with SPD display elements of extremes where they suffer from sensory overload sometimes and seek stimulation at other times.

It is important to understand their sensory needs and implement strategies to enable a positive experience in the education or care setting.



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## Neural safety



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## What does safety look like at school?

**“Before we can engage in social behaviour and learning we must first feel safe”**

Dr Steven Porges



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## Safe & Unsafe States of Being



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**Social Engagement**

**Tell Tale Signs**

**We feel safe in this state.**

- Our bodies are calm and relaxed.
- We engage in mirroring and reciprocity with each other.
- We are orientated towards one another with engaged, open faces.




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**Mobilisation**

**Tell Tale Signs** \* Our bodies are filled with energy, and we need to move.



**Play & Exploration**  
We experience a blend of mobilisation and social engagement in a **safely mobilised state**.

**Fight or Flight or Active Freeze**  
We are mobilised **without a sense of safety** in this state.

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**Mobilisation without feeling safe**

**Tell Tale Signs in the Classroom** \* Our bodies are filled with energy, and we need to move.

- Hypervigilant
- Edgy/jumpy
- Irritable – easily annoyed
- Poor recovery from distraction
- 'silly', loud, over-excitement
- Unsettled, sleep difficulties
- Outbursts, aggression
- Defensive, taking things personally
- Increased expectations of self and others
- Inflexible, 'controlling'
- Sensitive to sensory input



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**Immobilisation**

**Tell Tale Signs** \* Our bodies are slowed right down



**Being still with others for pro-social reasons, like sharing a hug. We find pleasure in stillness. This is an intimate state.**  
We experience a blend of immobilisation and social engagement in a **safely immobilised state**.

**Withdrawn, submissive, collapsed, numb**  
We experience immobilisation **without a sense of safety** in this state.



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**Immobilisation**  
without feeling safe

**Tell Tale Signs in the Classroom** \* Our bodies are slowed right down

- Flat, numb affect
- Disengaged, disinterested
- Withdrawn
- "boredom"
- Lethargic, unmotivated
- Disconnected from peers
- Developmental regression – e.g. with abilities to self-soothe, self-care/hygiene, toileting
- Changes to appetite

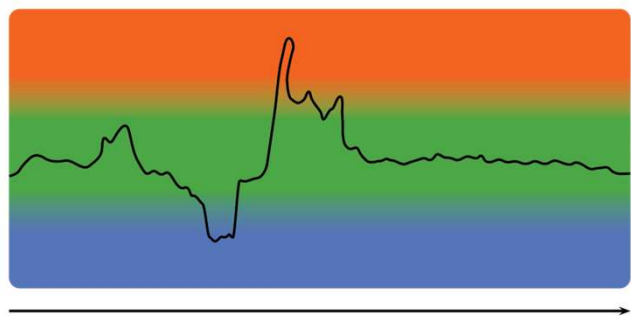
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**The Social Engagement System**




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**Line of my day activity**




**Mobilised**  
I don't feel safe zone

**Socially Engaged**  
I feel safe zone

**Immobilised**  
I don't feel safe zone


**My Day** →



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**If I don't feel SAFE then I will struggle to learn because...**


- Arousal**
  - Staying alert
  - Shutdown or hide
- Attention**
  - Trying to take in too much
  - Trying to avoid stimulation
- Memory**
  - Indiscriminate on what to store and what to let go
- Exploration**
  - It's not safe to explore
  - I need to prioritise finding a safe base, so I can't focus on new learning



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# S.P.A.C.E



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## Making SPACE for Learning



SPACE is the central acronym of the program. It includes 5 domains to help educators better understand the needs of children who have experienced trauma and ways to support them in the educational setting.

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## Staged



Children's brains need support to grow and learn

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## Predictable

- Changes to routines and uncertainty can be a source of stress to student
- Predictability in students' relationships and activities modulates their stress systems
- This then promotes flexibility and adaptability



**I feel better when I know what is coming next.**



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## Predictable

“I’ve come to a frightening conclusion that I am the decisive element in the classroom. It’s my personal approach that creates the climate. It’s my daily mood that makes the weather. As a teacher, I possess a tremendous power to make a child’s life miserable or joyous. I can be a tool of torture or an instrument of inspiration. I can humiliate or heal. In all situations, it is my response that decides whether a crisis will be escalated or de-escalated and a child humanized or dehumanized.”

Hiam Ginott


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## Predictable

What might predictability look like in practice?

- For students
- For families
- For all staff
- Systemically

relationships	physical activities
routines	instructions
learning tasks	behavioural expectations



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## Predictable




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## Brain break

- Bi-Lateral drawing



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## Adaptive

- Most of us have a set of behavioural routines that we draw from to respond to challenges when they emerge. These routines are likely based in what has helped us get by in the past and the experiences of relationships through which these routines were interpreted and responded to.
- To broaden children's behavioural repertoires and promote increased adaptability we need to maintain multiple meanings for the behaviour and remain open to multiple options for interventions.

## Adaptive

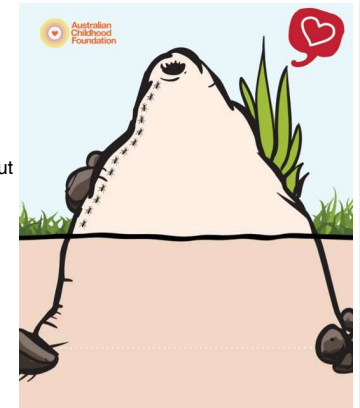
### Behaviour is communication

If we can understand what drives a behaviour, we can work out how to respond to it.

If we can meet the need that is driving a behaviour, the behaviour can start to reduce.

**Behaviours are functional** and almost always makes sense given their specific experiences of trauma.

Openness and curiosity about behaviour is an important response.



## Adaptive



## Connected

- Children's relational templates for forming and being in relationships take shape as they grow. They learn what to expect and how to navigate relationships through their experiences of connection with those around them.
- We tend to expect things from relationships based on what we have known from past connections.
- Strategies to support children as their relational templates continue to develop emphasise relationships with safe and consistent adults and peers as the foundation for healthy, strong social and emotional functioning.

**I need to feel like I am connected.**

**I need to feel safe.**

**I need safe connections in my life.**



## Connected

### Relational Safety

- Safety occurs in relationships that support physiological growth and renewal
- It is integrated into stories of meaning that offer predictability, security and stability
- It is connected with memories of family and home and experiences of strength love and nurture.
- It ritualises care and empathy

*“Safety and healing gives us back to ourselves. Not to hide or fight any more. But to sit still calm our minds, listen to the universe and allow our spirits to dance on the wind. It lets us enjoy the sunshine and be bathed by the golden glow of the moon as we drift into our dreamtime... Safety in relationships gives us back to our country. To stand once again in our rightful place, eternal and generational. It keeps us strong and gentle at the same time.”*

Helen Milroy (2018)



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## Connected

Safety is a central whilst complex concept in this training. It holds a range of meanings for us and for the children, families and communities that we work with

What does a safe space feel like for you?

How do you inhabit it?

What do you bring to it to make it feel safe?

What/ who else is inside the space that contributes to the safe nature of it?



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## Connected

### What is Relational Safety in the classroom?

**Accompaniment** is an experience for a child that offers emotional reciprocity, validation, care and comfort. In this experience they feel heard, met, felt and understood.

*“Children internalise the people who understand and comfort them, so that they often have the felt sense of accompaniment when they are alone.”*

Bonnie Badenoch



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## Connected




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## Enabled

- Engaging students in the process of understanding themselves can build social and emotional learning.
- When students know about their qualities, their attributes and their talents they can feel good about themselves.
- Knowing about their own special story helps students to build a coherent self-narrative.

**I grow stronger as I learn more about what makes me, me.**





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## Enabled




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Domains	Translated into needs statements
Staged	Student's brains need support to grow and learn <b>My brain grows/repairs upwards step by step</b>
Predictable	Need to know what they can count on <b>I feel better when I know what is coming next.</b>
Adaptive	Students need support to grow up healthy and strong <b>here are things I need to grow up healthy and strong.</b>
Connected	Students need to feel like they are connected. <b>I need to feel like I am connected.</b> Students need to feel safe and know about what makes a safe connection. <b>I need to feel safe.</b> <b>I need safe connections in my life.</b>
Enabled	Students need to know more about what makes them who they are. <b>I grow stronger as I learn more about what makes me, me.</b>





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### Making SPACE for Learning – Site Audit Tool

This audit tool can be used to evaluate the policies and initiatives of a school that resource and equip different levels of the school structure to undertake trauma informed practice. In the following table, list strategies, policies or other processes currently undertaken that support traumatised students at your school.

	Whole Site	Staff	Classroom / Group	Small Group	Individual Student / Child
<b>S</b> Staged					
<b>P</b> Predictable					
<b>A</b> Adaptive					
<b>C</b> Connected					
<b>E</b> Enabled					



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## The importance of you

“ As committed and caring professionals, we put the needs of our students at the fore of all we do and regularly support colleagues who may need help, but how often do we take time to meet our own needs?”

- Being mindful of your emotional and physical state.
- Understanding the influence of your own story.
- Know your stress points
- Having a range of self-care strategies that are planned and practiced
- Ensuring wellbeing strategies such as sleep, nutrition.
- Nurturing supportive collegial relationships.

(E. Stephenson, 2021)

Stephenson, E (2021) Please secure your own mask first, Teaching in Action, Issue #2 2021, Australian Council for Education Leaders, NSW



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## Staff Wellbeing

- Who is looking after the Educator/Staff brain?
- Where do Educators/Staff go to regulate?



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## Resources for selfcare

- Huberman Lab- Andrew Huberman
- Rocket Recovery –Andrew May
- Dan Siegel –Mindsight website and Healthy Mind Platter
- Wellness Wheel
- ProQol



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## Questions to consider

- How are you doing?
- Where do you go for support?
- Do you have or can you create a professional dynamic that allows for reflection, challenge, growth?



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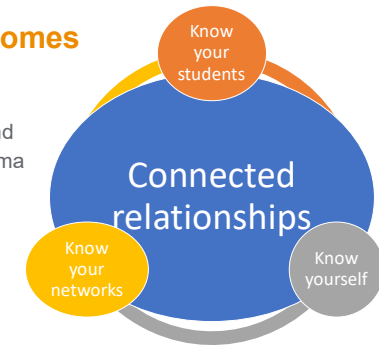
## Planning forward

- What were some key messages, ideas or themes that stood out for you from the training?
- What is something you would like to change or adopt?
- Is there anything you would like to do differently moving forward? If so - what are the next steps required to action this?



## A return to our success outcomes

1. Have a deeper understanding of development and the needs of children and young people who have experienced trauma
2. Have increased confidence in connecting with and supporting children and young people impacted by trauma
3. Identify connections in my network for collaboratively supporting students with complex needs



## Further Resources:

<https://professionals.childhood.org.au/making-space-learning-resources/>

Any questions?

[drichards@childhood.org.au](mailto:drichards@childhood.org.au)