

# Making



# for Learning

Trauma Informed Practice in Schools



**Horizons College - 21<sup>st</sup> June 2021 – online training**

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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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## Key learning outcomes – success criteria

- **develop** an enhanced understanding of complex abuse related trauma, with a particular focus on its effects on brain functioning.
- **apply** a framework for assessing the impact of complex abuse related trauma on children and young people.
- **build** on practice skills to apply key models of intervention which promote recovery for children in an education setting.



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## Principles guiding this workshop



Image source: ©ACF2021

**Your emotional safety is paramount**



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## Safety & relationships are key...

It is important to remember that safety – feeling and being safe and having safe, connected and attuned relationships are key to supporting a child or young person who has experienced trauma.

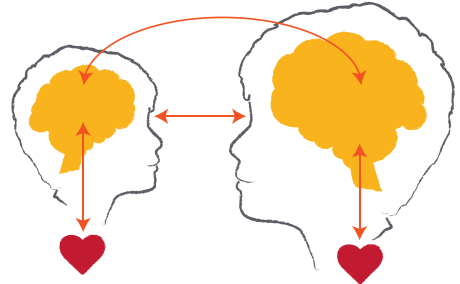


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## Trauma

### Developmental

**Trauma:** Occurs when the foetus in utero, baby, child or adolescent experiences trauma, from abuse and neglect during key stages of development

<b>Simple</b>	<b>Intergenerational</b>
<b>Complex</b>	<b>Transgenerational</b>
<b>Developmental</b>	<b>Historical</b>

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## Developmental trauma

Occurs when the foetus in utero, baby, child or adolescent experiences trauma, from abuse and neglect during these stages of development

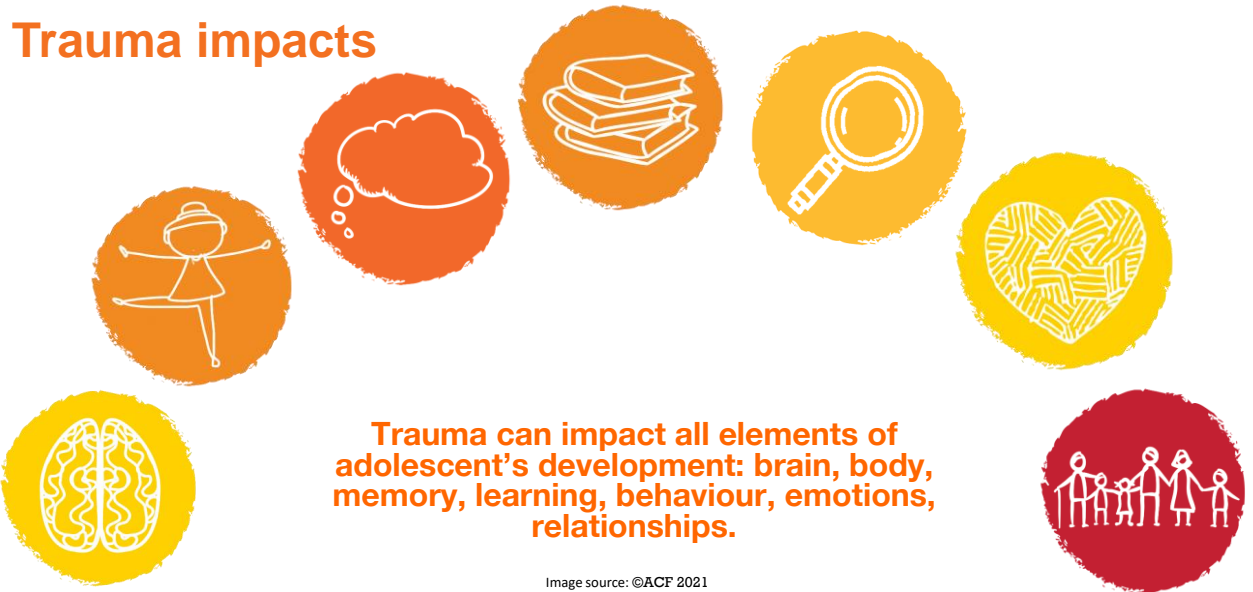


Image source: ©ACF2021



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## Trauma impacts



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

Image source: ©ACF 2021



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## The world around our adolescents

- Adolescent narrative
- Music
- Fashion
- Technology
- Language
- Thinking
- Substances
- Risks
- Social engagement
- Relationships



Image source: ©ACF2021



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## Adolescence and change

### Puberty Linked Changes

- Romantic motivation
- Sexual interest
- Emotional Intensity
- Sleep/arousal regulation
- Appetite
- Affective disorders
- Increased Risk taking, novelty seeking, sensation-seeking

### Age & Experience Linked Changes

- Planning
- Logic reasoning ability
- Inhibitory Control
- Problem solving



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## How does complex trauma impacts present?

- **Anxiety**
- Depression
- **Attention focused on avoidance**
- Relational & affect regulation disturbance
- Cognitive distortions
- Somatization
- Externalising behaviours such as: self-mutilation & violence
- Sexual disturbance



## Anxiety

- Overwhelms their capacity to cope, difficulty calming, worried, recurring thoughts, avoiding situations
- Gets in the way of normal life...can go on for weeks, months or maybe longer

**What have you noticed with your young people?**

## Attention focussed on avoidance

- Avoidance in young people is not as sophisticated as in adults, because young people have had less time to practice
- Avoidance is reflected in behaviour which distracts and deflects the young person from re-experiencing traumatic memory states
- For young people, these actions are facilitated in the body and lower architecture of the brain (motor sensory) and serve to maintain traumatic memory states rather than resolve them

## Impact of complex trauma on behaviour

When a student is feeling 'unsafe' and feeling a sense of powerlessness, then we may see:

- Aggression
- Overactive stress responses
- Withdrawal
- Agitation
- Tired due to lack of sleep
- Loss of fine motor skills (might stutter when talking)



Image source: ©ACF2021

## Trauma and young people in the school context

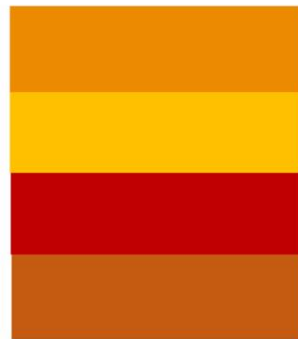
### How might young people be labelled?

- Disruptive
- Defiant
- Poor learners
- Non-achievers
- Unstable
- High risk of disconnecting
- Waste of time
- Need another learning environment!



Image source: ©ACF2021

## A focus on brain development in adolescents



**The Thinking brain**  
3-5 Years

**The Emotions and Memory  
Brain - Birth to 4 years**

**The Movement Brain**  
Birth – 2 years

**The survival brain**  
Pre birth to 8 months

Image source: ©ACF2021



## Brainstem – survival centre

- basic life functions
- first part of our brain to develop & the most developed brain part at birth
- responsible for our heart beat, breathing, sucking, chewing and swallowing, temperature control blood pressure and our sleep cycle



Image source: ©ACF 2020



## The brain stem under stress and trauma

- may experience fast or slower heart rate
- shortness of breath or breathing difficulties
- sleep disturbances and unsettledness
- sucking and swallowing and digestion difficulties
- may feel hot or cold or not notice changes in temperature



Image source: Shutterstock

What do you notice?

## Strategies for transforming – brainstem RHYTHM, BREATH, MOVEMENT

- include soothing and calming activities, safe containment
- movement based activities
  - include activities that have a rhythmic, repetitive element
- breath based activities
- conduct a sensory audit – ie: is it too hot or too cold, too noisy?
- include proprioceptive and interoceptive awareness and activities

## Amygdala

Has three roles:

- **Alarm centre** - the ‘smoke detector’ of the brain
- **Memory centre** - processes & stores implicit memories
- **Emotion centre** – helps with emotional understanding and regulation



Image source: ©ACF2021

## The amygdala under stress and trauma

- can be over active or under active
- can evoke reminders and flashbacks of the trauma (awakenings)
- will have difficulty in emotional regulation
- will have difficulty in reading facial expressions
- Constantly 'firing' – can hijack the cortex (thinking goes offline)



Image source: Shutterstock

What do you notice and what can you do?

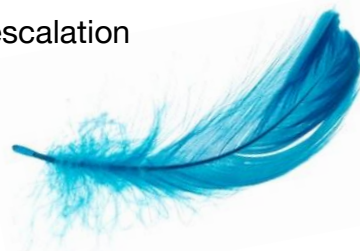


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## Strategies for transforming – Amygdala

- Manage own reactions (stay calm & present)
- Don't rely on reason/thinking to reduce an escalation
- Regular outreach activities
- Provide opportunities for rest and recovery
- Environmental audit (noise, smell, colour, person, situation).



***Re-entry to the classroom should be a safe and positive transition whenever possible.***



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## Transforming trauma – thinking about transitions....

### Reflection activity

- How many transitions would your young person go through in any given day?
- How can assist students who have experienced trauma to manage these?



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## Hippocampus

- explicit memory centre
- provides context to memories
- provides consolidation of information from short term memory to long term memory
- memory puzzle sorting centre



Image source: ©ACF 2020



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## Implicit and Explicit Memory Systems

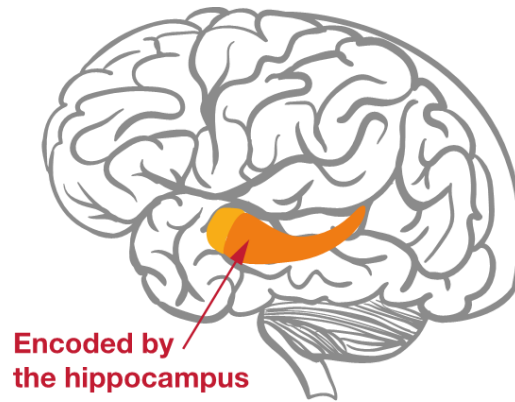


Image source: ©ACF 2021

## The hippocampus under stress and trauma

- Reduction of hippocampal volume up to 25% as a result of high levels of cortisol
- Can't place memories in time or place – flooding & flashbacks
- Working memory, retention and recall (retrieval) capacity is severely impacted
- Narrative/autobiographical memory is affected



Image source: Shutterstock

What do you notice?

## Strategies for transforming – Hippocampus

- Repetition
- Reminders
- Review
- Reinforce



*Calming the brainstem, quietening the amygdala and boosting the cerebellum will all help the hippocampus to function more effectively*

## Cerebral cortex – thinking centre

- the largest part of the brain
- associated with higher brain function such as thought and action
- examples of functions:
  - reasoning
  - logic
  - judgement
  - voluntary movement



Image source: ©ACF 2021

## Cortical areas under stress and trauma

Unable to:

- use foresight and anticipation, focus or sustain attention
- plan, organise or prioritise or make decisions well
- reflect or have self-awareness
- be enthusiastic, motivated or persist with activities
- use impulse control

What do you notice?



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## Strategies for transforming – cortical areas

***Safety and stability are essential pre-requisites for cortical access***

- problem solving activities and strategies
- support to map and plan activities
- games - card games – boards games – strategy games
- voluntary movement activities – table top drumming, clapping etc
- thinking and choice games – “Would you rather?”
- mindfulness or focused and attuned activities (see MPFC)



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## The Prefrontal Cortex- executive function centre

Final part of the brain to reach maturity in one's mid to late twenties

- 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



Image source: ©ACF 2021

## Vulnerabilities – the impact of trauma on the PFC

Behaviours associated with an underdeveloped pre-frontal cortex

- short attention span
- impulsivity and increased risk taking
- procrastination (lack of motivation or internal reward systems)
- disorganisation (trouble working through long term goals)
- poor Judgement and problem solving
- reduction in ability to see things from other's perspective



## Vulnerabilities – the double whammy!

### Behaviours associated with an overactive limbic lobe and under-active pre-frontal cortex

- Over emotional reactions
- Trouble reading facial expressions
- Ill-attuned communication skills

### Our focus....

- Lack of impulse control
- Increased risk taking



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## Lack of impulse control and increased risk taking

### Group activity

- What are the challenges and risks.....
- Can you differentiate between positive and negative risk taking?
- Why does risk taking increase between childhood and adolescence and decrease between adolescence and adulthood?

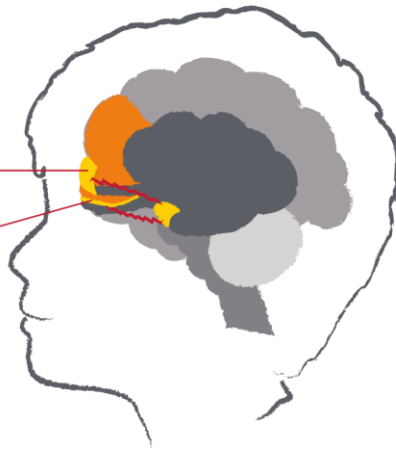


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## Medial Pre-frontal Cortex and the Right Orbito-frontal Cortex

**Medial Pre-Frontal Cortex**  
 (the centre of Mindfulness/ Self awareness)

**Right Orbitofrontal Cortex**  
 (Regulation of Arousal)

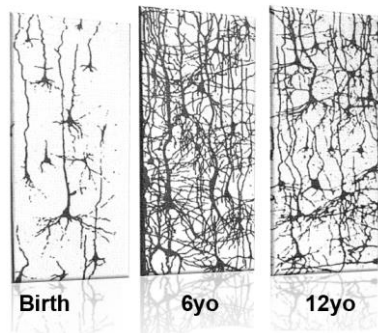
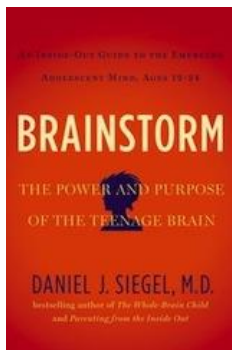


- Mindful awareness/ meditation de-activates the amygdala
- Quality co-regulation de-activates the amygdala

Image source: ©ACF 2021



## Adolescents - The remodelling brain: Pruning & myelination in the teenage brain



<https://www.youtube.com/watch?v=jXnyM0ZuKNU>



## Young people and the importance of sleep

- adolescents need more sleep than adults or children - optimal time being about nine and a half hours
- pruning and myelination occur during sleep
- sleep strengthens learning and memories
- later starting times for schools show statistically significant impact on academic achievement

What does the start of the day look like at your school?



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## Risk taking and impulse control



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## Development of the left and right hemispheres

### Left Hemisphere

- Evaluates language content
- The optimistic hemisphere
- Understands beginning, middle and end
- Learns from the past and expects the future
- Looks for patterns

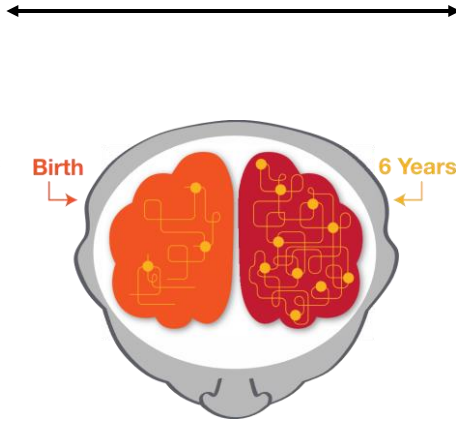


Image source: ©ACF 2020

### Right Hemisphere

- Orientated in the present moment
- Eye Contact
- Facial Expression
- Tone of Voice
- Posture
- Gesture
- Intensity
- Grasps the whole

## Broca's and Wernicke's areas

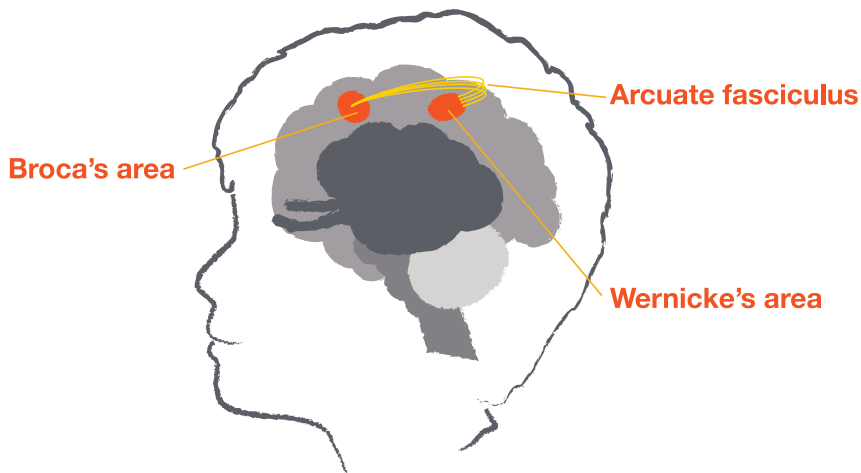


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## Under stress and trauma....

Adolescents who have had experiences of trauma are often stuck in their right hemisphere.

It could be hard for the them to:

- Understand what we say (a left hemisphere task)
- Speak or articulate what they need (a left hemisphere task)



Image source: ©ACF2021

## Strategies for transforming – building RH/LH connection

- Activities that cross the midline
- Using gestures, intonation, melody, etc to accompany speech
- Putting words to feelings when making observations
- Incorporate cognitive elements into calming/stimulating activities (eg. counting)



Image source: ©ACF 2020

# An introduction to the Polyvagal theory and neuroception

Cues of risk and safety are continually monitored by our nervous system.

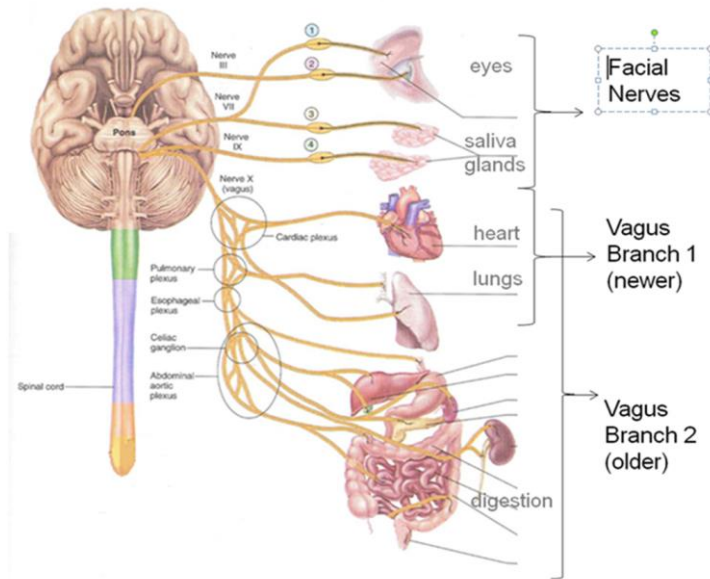
**“Before we can engage in social behaviour and learning we must first feel safe.”**

(Porges, 2015, p.115).



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## The Vagus Nerve



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# Polyvagal theory and protective responses

by Stephen Porges

## Behavioural Functions

## Body Functions



**Social Engagement**  
Soothing and calming  
Indicates safety

- Lowers or raises vocalisation pitch
- Regulates middle ear muscles to perceive human voice
- Changes facial expressivity
- Head turning
- Tears and eyelids
- Slows or speeds heart rate



**Mobilisation**  
Fight or Flight  
Active Freeze  
Moderate or extreme danger

- Hyper arousal**
- Increases heart rate
  - Sweat increases
  - Inhibits gastrointestinal function
  - Narrowing blood vessels - to slow blood flow to extremities
  - Release of adrenaline



**Immobilisation**  
Collapse or submission  
Death feigning  
Increased pain threshold  
Conserves metabolic resources  
Life threatening situations

- Hypo - arousal**
- Slows heart rate
  - Constricts bronchi
  - Stimulates gastrointestinal function



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# Regulated Arousal

Fight or Flight hyper-vigilant, action-orientated, impulsive, emotionally flooded, reactive, defensive, self-destructive

Freeze Physically immobilized, frozen, tense musculature

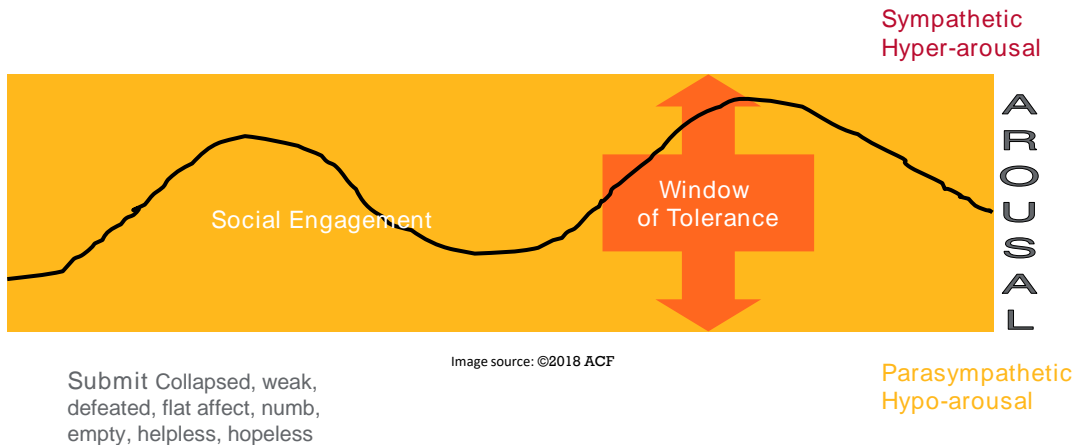


Image source: ©2018 ACF

Ogden, Minton, Pain 2006



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# Dys-regulated Arousal

Fight or Flight Hyper-vigilant, action-orientated, impulsive, emotionally flooded, reactive, defensive, self-destructive

Freeze Physically immobilized, frozen, tense musculature

Sympathetic Hyper-arousal



Submit Collapsed, weak, defeated, flat affect, numb, empty, helpless, hopeless

Parasympathetic Hypo-arousal

Image source: ©2018 ACF



Ogden, Minton, Pain 2006

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## Trauma and behaviour – adaptive to maladaptive



Photo by Orlando Recovery Centre



Photo by Salibe

Trauma based behaviour is functional at the time in which it develops as a response to threat.



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## Framing Behaviour Support Plans

- Consider the **function behind the behaviour** – what is the unmet need? What alternatives could we offer the child to meet this need in a different way?
- Can the behaviour be understood as a **fight, flight, freeze or withdrawal** response?
- What **stressors or situations** do we think trigger these behaviours, and which ones can we do something about?
- What **skills** can we help the child/young person to develop, to support them in reducing these behaviours?

**Don't rely on consequences to promote behaviour change**



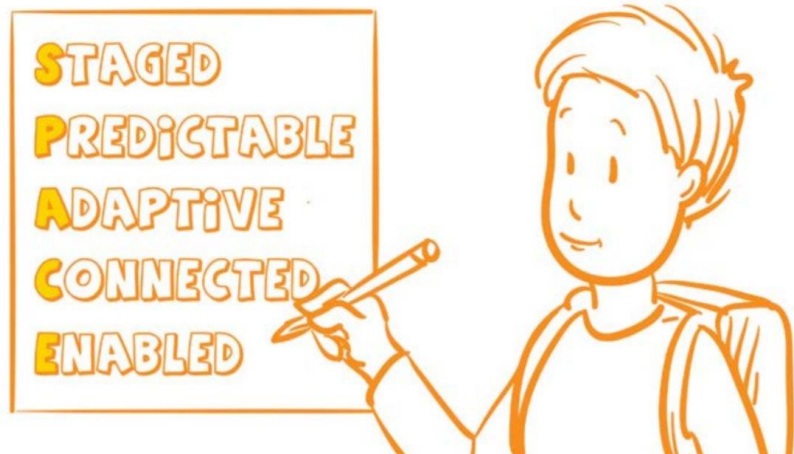
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## SPACE

Schools can respond effectively to the needs of traumatised children and young people, using the five key dimensions of the acronym SPACE.



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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
<div style="display: flex; flex-direction: column; align-items: center; gap: 10px;"> <div style="text-align: center;"> <span style="font-size: 2em; color: #f1c40f;">S</span>                      Staged                 </div> <div style="text-align: center;"> <span style="font-size: 2em; color: #e74c3c;">P</span>                      Predictable                 </div> <div style="text-align: center;"> <span style="font-size: 2em; color: #f1c40f;">A</span>                      Adaptive                 </div> <div style="text-align: center;"> <span style="font-size: 2em; color: #f1c40f;">C</span>                      Connected                 </div> <div style="text-align: center;"> <span style="font-size: 2em; color: #e74c3c;">E</span>                      Enabled                 </div> </div>					

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## Showcase booklets

<https://professionals.childhood.org.au/building-capacity-in-educational-settings/>

Victorian Project Reports  
Cardinia Schools 2017

A practical resource reflecting the work of Tasmanian schools involved in the Transforming Adolescence Trauma project. Compiled by the Department of Education Learning Services and the Australian Childhood Foundation.

A practical resource reflecting the work of South Australian Catholic Schools involved in the Trauma Sensitive Practice in Schools project. This has been compiled by the Australian Childhood Foundation and Catholic Education South Australia.

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