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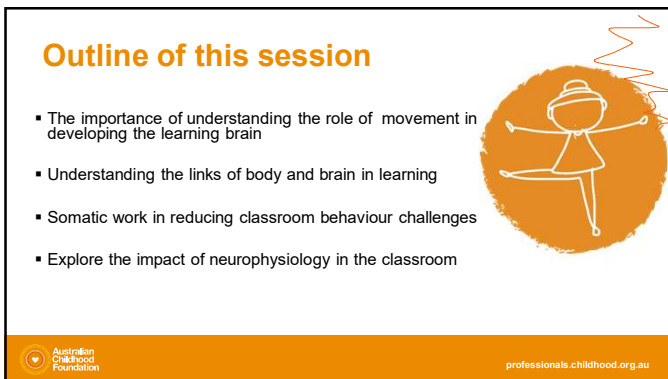
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**Question**

An airline jet crashes into the sea and every single person dies.  
Two people live.  
How is that possible?



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**Movement is regulating and healing**

*The simple act of moving the body can create a major sense of accomplishment for students whose bodies have been thrown into turmoil, is unknown to them or is frozen or numb due to their experiences.*



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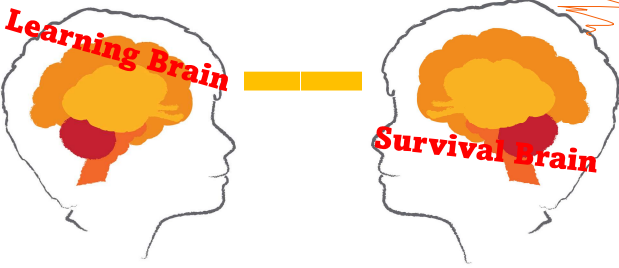
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**Importance of somatic activities in the classroom**

- To help students connect to and learn to understand their own bodies and emotions
- Movement is regulating
- Use of body connects to learning
- Just standing up can change regulation state



The simple act of moving the body and learning to be in their body can be a major achievement for students



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**Using a somatic approach in the classroom...**

- Encourages better body-based awareness
- Offers an opportunity to communicate without a reliance on words or language
- Enhances the students movement repertoire and physical capability
- Increases flexibility, strength and co-ordination
- Assists to build positive connections with others



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**Somatic experiencing: using interoception and proprioception as core elements of the classroom**

- By paying attention to students' interoceptive and proprioceptive experience you build inner attention
- The use of interoceptive activities can lead to the resolution of symptoms resulting from chronic and traumatic stress. .
- Interoception is the 8th sense and it is the pre-requisite skill for self-regulation.
- Interoception activities- you can create your own classroom activities



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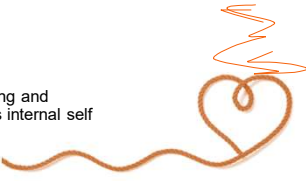
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**What is an effective activity**

An interoceptive activity focuses on creating and noticing a change in some aspect of one's internal self such as:

- muscular system,
- breathing,
- temperature,
- pulse or touch.
- head and body awareness

Interoception activities teach us to connect with these



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**Neurophysiology of trauma**





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**Demonstration –volunteer required.**



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## Brain Development and Developmental Movement Patterns




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## Brain Development and Developmental Movement Patterns

“Areas of the brain and nervous system can be stimulated through the practice of specific movements. It is the actual practicing of the movement patterns that stimulates the developing functions of the brain...”

(Source: Margret Mills and Bonnie Bainbridge Cohen, Developmental Movement Therapy 1979, as cited in Hartley, *Wisdom of the Body Moving*, P.94)

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## Brain Development and Developmental Movement Patterns

- Each basic developmental movement pattern is coordinated by a specific area of the brain.
- Inadequate meeting of needs when young such as through trauma, abuse and neglect may inhibit the students' healthy progression through the movement patterns.
- Re-education is possible for missed patterns (even as an adult) leading to greater inner strength, clarity and aliveness.

(Source: Linda Hartley, *Wisdom of the Body Moving*, P.90-91)

Explore Brain Dance




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### Developmental Movement Patterns

<p><b>1. BREATH</b> – individual cells</p> <p><b>2. CORE DISTAL CONNECTIVITY</b> Navel radiation – brainstem</p> <p><b>3. HEAD TAIL CONNECTIVITY</b> Spinal push – brainstem Spinal reach – brainstem Spinal reach &amp; pull – diencephalon</p>	<p><b>4. UPPER-LOWER CONNECTIVITY</b> Homologous push &amp; reach – diencephalon</p> <p><b>5. BODY HALF CONNECTIVITY</b> Homolateral (left side, right side) push – cerebellum</p> <p><b>6. CROSS-LATERAL CONNECTIVITY</b> Contralateral crawling – two hemispheres/ corpus colosum</p>
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Source: Peggy Hackney. *Making Connections Total Body Integration Through Bartheleff Fundamentals*


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### 1. Exploring breath

Cellular breathing-changes regulation and decreases blood pressure/heart rate

Do calm breathes  
Do angry breathes

Blowing up balloons  
Blowing bubbles  
Feather breathing  
Oms  
Impact on alpha and beta brain waves




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### 2. Core distal connectivity - navel radiation

- Starfish – opening and closing
- With your hands, squeeze strongly each arm, each leg and the torso
- Move from the center out, through and beyond the fingers, toes, head, and tail.
- Then curl back to torso while engaging core muscles. Movement that grows and shrinks, stretches and curls into big "X"s and little "o"s is great!
- Hug self



**Core-Distal is the developmental and connectivity pattern that supports us in safely going within and claiming our sense of self.**


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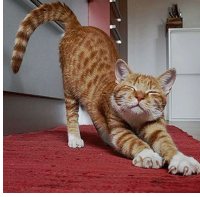
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### 3. Exploring head-tail

- The head and the coccyx can reach away and towards one another in many directions.
- Move the head and tail (lowest part of spine or coccyx) in different directions and pathways.
- Play with movement that brings head and tail/pelvis together curving forward and backward and side-to-side.
- Keeping the knees bent helps to release the pelvis.
- Wiggle the spine like a snake.- includes the ability to move the spine in all three planes
- Cat stretch



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### 4. Exploring homologous movements:

- Frog jumping
- Kangaroo jumps – image of heavy tail
- Crab walks
- Floss dance
- Skipping rope jumps with two legs together
- Rolling up through the spine
- Up down movements with scarves



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### 5. Exploring homolateral or body half movements:

- Make a big X with your body.
- Dance with the left side of your body while keeping the right side stable (still). Then swap sides
- With knees and elbows slightly bent like a "W" bring the left half of the body over to meet the right half and vice versa.
- Do the lizard crawl with arms and legs open to the sides - reach left arm and knee up then right arm and knee up like a lizard crawling up a wall.
- Move your eyes right to left and left to right - to develop horizontal eye tracking.



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**6. Exploring cross lateral movements:**

- Do a parallel standing crawl with knees and hands in front of you.
- Let your eyes travel up and down looking at one thumb as it reaches high and low for vertical eye tracking.
- Do a cross-lateral boogie dance finding as many ways of moving cross-laterally as possible such as touching right knee to left elbow, left hand to right foot, right hand to left knee, left hand to right hip, skipping, walking, crawling, etc.
- Swimming and Marching



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**Movement**

Using movement to promote safety, stabilisation, regulation and increasing adaptability

Understanding their body  
How does their body signal when they feel unsafe/safe?  
What are some of the first signs that they feel unsafe/safe?

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**Somatic activity in curriculum basics**

- **Art , Drama-** breathing for music, drama, dance-what do our bodies feel like when we experience different emotions, tense our bodies up to feel scared, relax our bodies to learn
- **Mathematics** -position/movement, time, data collection, graphing, data analysis, number, counting pulse rate, breathing, steps, running around oval.
- **English** -vocab, positional language, ways we can use speech, gesture, writing communicate feelings -explicitly teach vocabulary including movement words, body words and descriptive words – "stretch your fingers out and feel the muscles in your hand **tense**, now **relax** your fingers
- **Science**-how the body works, nervous system, healthy body, digestive system, Biology, neuroscience



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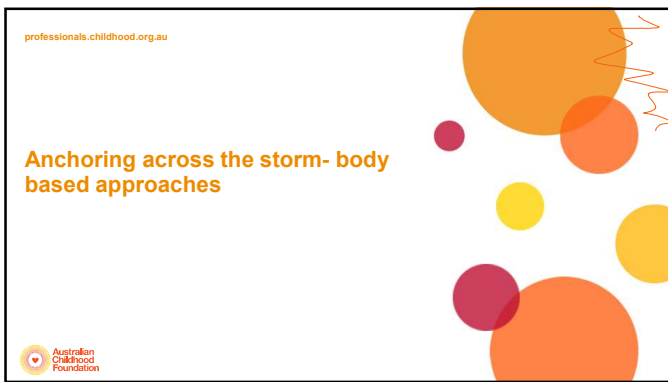
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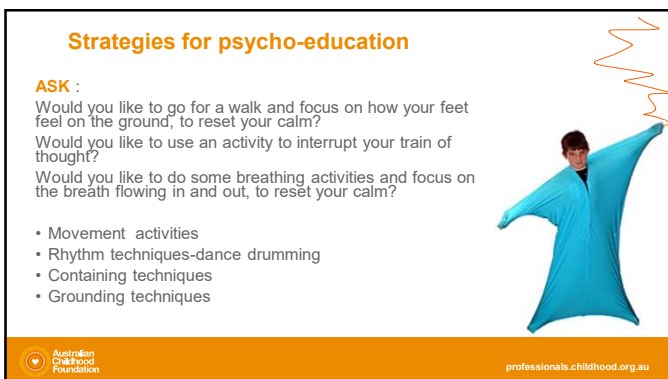
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patterns in the body  
both reflect the  
internal state and  
serve to sustain it

Pat Ogden



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