

### Discussion Paper 3

#### Exploring the impact of abuse related trauma on memory functioning of children



#### Introduction

The purpose of this discussion paper is to explore the specific impact of trauma on memory function for children who have experienced abuse related trauma.

The third SMART discussion paper encourages readers to reflect on the implications of trauma on children's ability to remember and learn.



#### Section 1. Memory and trauma

Memories help to resource children's abilities. They provide platforms for knowledge. They provide frameworks for children to learn how to respond to their own needs and those of others.

Trauma dramatically affects children's memory capacity. It serves to degrade children's memories. Children's working memory is extensively reduced. They find it difficult to learn. They are not able to remember events and the sequence in which they occurred. They are unable to build a narrative about their lives which draws out meaning and understanding. In many ways, trauma reduces children's ability to remember who they are.

In the following table, a summary of the different types of memory are described. Examples of the ways that trauma affects memory function is specifically explored in the final column.

Memory type	Description	Example of positive memory function	Example of trauma affected memory function
<b>Implicit memory</b> 	<b>Memories stored in subcortical areas of the brain.                      Stored and retrieved without our awareness.</b>		
<b>Sensory memory</b> 	Memories encoded and retrieved subconsciously based on sensory input.	The smell of the classroom on a hot day.  The taste of a “Chocolate Big M”.	A tone of voice that is similar to the abuser.  The smell of an air freshener from a previous home.
<b>Templates</b> 	Other patterns of neural connection which are repeated and learned subconsciously.	Using a pencil.  Hopping well enough to play hopscotch.  Walking.	Hiding under a table when hearing arguing.  Rising to one’s feet when a threat is perceived.
<b>Explicit memory</b> 	<b>Memories stored in the cortex.                      Stored and retrieved with our awareness (consciously).</b>		
<b>Semantic/factual memory</b> 	Specific facts or items of knowledge.	My name.  Colours.  Times tables.	My nickname is “little bugger”.
<b>Episodic</b> 	Discrete events or occurrences where the individual was present.	A sports lesson where I received praise.  The school concert.	The events of the week are not retained.  The child can’t tell you who they played with yesterday.
<b>Narrative</b> 	That which enables us to connect a range of memories to make meaning of our experiences	How the capacity to be a good friend has developed.	Unable to construct a family history in the “Life and family” learning module.



## Trauma and memory

The above table outlines some of the ways that memory is affected by the experience of trauma. These outcomes stem from the chronic arousal state that underpins the brain's response to trauma. Trauma causes memory systems to degrade and fail. The more complex formed systems of memory are dissolved first. The most complex form of memory is narrative memory.

Implicit memories are most easily triggered by what are called cues. The brain tags the original sensory experience of violence, such as the tone of voice of the abuser, with the emotional intensity of that experience. When the child hears a similar tone and the implicit memory state is triggered, then the child will re-experience the feelings almost as if they are occurring again. The child's brain is unable to distinguish between the original trauma and the re-triggering experience. The behavioural response to the retriggered memory is very similar to the way the child responded to the original experiences of abuse and violence. It is often said that chronically traumatized children are held hostage to their past. This can be confronting and overwhelming for the child.

Children often manage the retriggering of traumatic memories by disconnecting from those around them, engaging in behaviour that draws attention away from their feelings of confusion or shame (distracts) or being overwhelmed by their emotional reactions (distraught). The following table outlines a scenario and some of the behavioural responses that might sit within each of these categories.

<p>Elizabeth is a quiet student but generally quite well behaved. One day another student comes into the classroom very upset because her grandma died the night before. She is crying and very distracted.</p> <p><i>What is unknown to you and Elizabeth is that this kind of crying triggers a memory for Elizabeth of her mother's reaction to her father's violence.</i></p>			<p>Jonathan is a bit of an isolate but you get the feeling he is trying to build a positive relationship with you. You ask him to go to the office to collect the weekly newsletters, ask the secretary for a couple of documents and collect the day's attendance sheet from the AP. He is found 15 minutes later at the back of the oval.</p> <p><i>Jonathan headed for the office but could only remember one task....</i></p>		
<p><b>Disconnects</b></p>	<p><b>Distracts</b></p>	<p><b>Distraught</b></p>	<p><b>Disconnects</b></p>	<p><b>Distracts</b></p>	<p><b>Distraught</b></p>
<p>Elizabeth crawls under her desk and stares at her fingers.</p>	<p>Elizabeth says loudly that she has a really good joke and everyone should listen.</p>	<p>Elizabeth begins sobbing and runs up to the other girl, pushing other students out of the way.</p>	<p>Jonathan just follows the teacher who finds him but engages in no conversation or explanation.</p>	<p>Jonathan tells anyone who will listen that this is a stupid class and he doesn't know why he has to be there.</p>	<p>Jonathan just sits on the oval crying quietly and saying he wants to go home.</p>

The behavioural responses of traumatized children are often labeled within the school environment with a number of labels including resistant, stubborn, over-reacting, attention seeking, impulsive, confrontational or having a learning disability.



## Section 2. Questions for reflection or discussion

1. How does this knowledge facilitate further understanding of a specific student at your school?
2. Does this knowledge change the ways in which you would work with this student?
3. Which element(s) of SMART PRACTICE are of most value when working with the ways that trauma can affect children's memory functioning?
4. What have you utilized as an effective strategy for working with students to support their memory functioning? Is this a strategy specifically for the individual student or a whole class or whole school plan?
5. Do you have a challenge you would like to share with colleagues in looking for a different support path?