

## SPED102 Final Notes

### WEEK 1:

How we are misled:	<ul style="list-style-type: none"> <li>• We are pattern seeking - see them when they aren't there</li> <li>• Poor understanding of probability</li> <li>• Memory is flawed, unreliable and vulnerable</li> <li>• Power of belief and motivated reasoning</li> <li>• We can all be fooled - regardless of age, education etc</li> </ul>
Questionable practices in education:	<ul style="list-style-type: none"> <li>• Facilitated communication</li> <li>• Learning styles</li> <li>• Digital natives</li> <li>• Perceptual motor programs</li> </ul>
	~ Critical thinking is important ~

### WEEK 2: COGNITIVE BIASES

Weird beliefs:	<ul style="list-style-type: none"> <li>• Mediumship</li> <li>• Telepathy, precognition</li> <li>• Homeopathy</li> <li>• Auras</li> <li>• Graphology (handwriting)</li> <li>• Rumpology (looks at lumps on bum)</li> </ul>
Cognition	<ul style="list-style-type: none"> <li>• Anything to do with perception, thinking, problem solving and language</li> <li>• Our cognitive abilities let us down and are vulnerable</li> </ul>
Cognitive biases	Consistent mistakes people tend to make a lot of the time.
Pareidolia	<ul style="list-style-type: none"> <li>• Psychological phenomena whereby we see meaning in random stimuli.</li> <li>• Evolutionary advantage of being sensitive to patterns</li> </ul> <p>False belief that we have control over a random event e.g. the Lotto.</p>
	We misunderstand relative and absolute risk.
	We have a poor understanding of probability e.g. doctors in Germany and US.
Randomness:	<ul style="list-style-type: none"> <li>• We find it difficult to recognise random patterns</li> <li>• Randomness does not look random</li> <li>• Believers more likely to attribute random events to paranormal experiences</li> </ul>
Coincidence - chance of paranormal?	<ul style="list-style-type: none"> <li>• Law of large numbers</li> <li>• Confirmation bias - remember hits, forget misses</li> <li>• E.g. precognitive dream</li> </ul>
	<p>~ Poor understanding of probabilities may contribute to belief in telepathy, precognition, and psychic phenomena ~</p> <p>~ We cannot rely on our cognitive abilities ~</p>

**WEEK 3: COGNITIVE BIASES**

Anchoring effect	<ul style="list-style-type: none"> <li>• Tendency of arbitrary baseline values to affect decisions.</li> <li>• E.g. poetry recital - initial offer affected subsequent</li> </ul>
Framing effect	<ul style="list-style-type: none"> <li>• Value attached to an item is influenced by irrelevant alternative choices.</li> <li>• Idea of value is 'framed' by comparisons → manipulated to affect our choices</li> <li>• E.g. TV prices based on size framed so we buy particular one</li> </ul>
Memory	<ul style="list-style-type: none"> <li>• Is like finding a tiny torn fragment of a photograph and making up a story about the fragment.</li> <li>• Is vulnerable</li> <li>• Active and fluid</li> </ul>
Misinformation effect	<ul style="list-style-type: none"> <li>• Information can manipulate a person's memory</li> <li>• Elizabeth Loftus 1970s - showed how susceptible and changeable memory can be             <ul style="list-style-type: none"> <li>• Faulty eyewitness evidence of car accidents</li> </ul> </li> </ul>
False memories	<ul style="list-style-type: none"> <li>• Memories of a completely fictitious event can be created under the right circumstances</li> <li>• 'Shopping mall' experiment - suggest an entire memory of something that never happened             <ul style="list-style-type: none"> <li>• 25% of people came back with vivid recollections of false event</li> </ul> </li> <li>• Creation in the lab:             <ul style="list-style-type: none"> <li>• 'Crashing memories' paradigm - create false memories of seeing non-existent film footage of public events e.g. Bali bombing                 <ul style="list-style-type: none"> <li>• No footage exists, but respondents claim they have seen the events</li> </ul> </li> <li>• Doctored photographs - 50% remembered details</li> <li>• Narratives</li> </ul> </li> </ul>
Social influence	<ul style="list-style-type: none"> <li>• Oklahoma bombing - eye witness testimonies were influenced socially</li> <li>• Co-witness can influence memory of a witnessed event - recalled as own memory</li> <li>• Asking a question implanted a memory</li> </ul>
False memory syndrome	<ul style="list-style-type: none"> <li>• Misguided therapists led patients to believe they had been abused by creating false memories.</li> </ul>
Psychic readings:	<ul style="list-style-type: none"> <li>• Sitters confident they gave no information - recording suggests they did</li> <li>• Memory influenced by belief</li> </ul>
Confirmation bias	<ul style="list-style-type: none"> <li>• Tendency to favour information that conforms with existing beliefs.</li> <li>• May involve:             <ul style="list-style-type: none"> <li>• Seeking information consistent with beliefs</li> <li>• Seeing what you are looking for</li> <li>• Accepting information consistent with beliefs and dismissing information that is not</li> <li>• Recall bias</li> </ul> </li> </ul>
Belief persistence	<ul style="list-style-type: none"> <li>• Reluctance to change our views, even on the face of compelling evidence.</li> </ul>