

## Insight into...



# Mindsets: *How beliefs shape learning*

Learning &amp; Teaching Series: 2

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@WL\_EPS

*Promoting knowledge and understanding of the importance of research and engagement in professional learning to improve learning and teaching (GTCS Standards for Teacher Registration, 2012).*

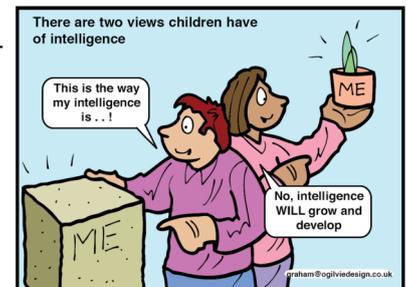
## What do we mean by “mindset”?

Psychological theories suggest that we develop personal belief systems to help organise the world around us and to give meaning to our experiences. These beliefs are thought to be formed through our own experiences, the things we see, the messages we hear and our interactions with others. It is thought that this is why people can differ in the ways in which they deal with the same situation, and why some people appear to struggle with failure while others thrive on a challenge. The research of Carol Dweck, a leading Professor in Psychology, has demonstrated that the view or belief a person adopts for themselves, their mindset, can profoundly affect the way they lead their lives.

## Fixed and Growth Mindsets

Dweck identified two basic “mindsets”. The **Fixed Mindset**, which is the belief that our personal qualities are set in stone and can't really be changed (i.e. we are either born good at music/maths/sports etc. or we are not), and the **Growth Mindset** which is the belief that personal attributes can grow and develop through effort.

There is a growing body of evidence to show that the way students think about intelligence can affect their motivation to learn, the effort they put into learning and how they cope with success and failure (see table below). This research also shows that teaching students to have a “growth mindset”, which encourages a *focus on effort* rather than on intelligence or talent, can help them to become high achievers in school and in later life.



FIXED MINDSET		GROWTH MINDSET
<ul style="list-style-type: none"> <li>* Something you are born with</li> <li>* Fixed</li> </ul>	<i>SKILLS</i>	<ul style="list-style-type: none"> <li>* Develop with time through effort &amp; perseverance</li> <li>* Can always improve</li> </ul>
<ul style="list-style-type: none"> <li>* Something to avoid</li> <li>* Could reveal lack of skill</li> <li>* Tend to give up easily</li> </ul>	<i>CHALLENGES</i>	<ul style="list-style-type: none"> <li>* Should be embraced</li> <li>* An opportunity to grow</li> <li>* Willing to try</li> </ul>
<ul style="list-style-type: none"> <li>* Unnecessary</li> <li>* Something you do when you're not good enough</li> </ul>	<i>EFFORT</i>	<ul style="list-style-type: none"> <li>* Essential</li> <li>* A key to success</li> <li>* A path to mastery</li> </ul>
<ul style="list-style-type: none"> <li>* Get defensive</li> <li>* Take it personally</li> </ul>	<i>FEEDBACK</i>	<ul style="list-style-type: none"> <li>* Find it useful</li> <li>* Something to learn from</li> <li>* Identifies areas to improve</li> </ul>
<ul style="list-style-type: none"> <li>* Blame others</li> <li>* Get discouraged easily</li> </ul>	<i>SETBACKS</i>	<ul style="list-style-type: none"> <li>* Opportunity for learning</li> </ul>
<ul style="list-style-type: none"> <li>* Fear of failure</li> <li>* Measure of how clever they are</li> <li>* Threatened by others' success</li> </ul>	<i>SUCCESS</i>	<ul style="list-style-type: none"> <li>* Measured by the learner having mastered something and having learned new skills</li> <li>* Inspired by others' success</li> </ul>

## How to Promote and Support Growth Mindsets in the Classroom

### Formative Feedback

Ensure children are aware of their strengths and areas for development. Frequently assess students' work and provide them with formative feedback so that they know what they do well and what they can do better.

### Specific Praise

Focus on the process of learning rather than the results. Use process praise, constructive criticism and discuss alternative strategies when a child is stuck to foster the message that everybody can improve and learn.

### Learn from Mistakes

Actively encourage pupils to make mistakes. Provide a safe and secure learning environment in which falling over is not criticised or laughed at, but is actively encouraged as evidence of effective learning and getting better at something.

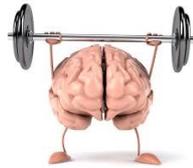
### Model a Growth Mindset

Be aware of your own mindset. Children learn from what the adults around them say and do. Fixed mindset messages can encourage children to avoid making mistakes rather than embracing the challenge.

*"A person who never made a mistake never tried anything new" Albert Einstein*

## Growing our Brains

The adult brain contains 100 billion neurons and has over 1 trillion synapses, highlighting the extraordinary number of possible connections between neurons. Electrical impulses moving through this neuron network form the basis of memories, thoughts and feelings. It used to be assumed that the neural structure of the brain was static, however, we are now aware that the connections between neurons can change. Connections that are not used can be pruned away, while connections that are used regularly become more efficient, new connections can be forged and even new neurons can be grown. The more we use a connection (or set of connections) the more 'hard wired' it becomes.



Teaching children about the plasticity of the brain and explaining to them how the brain works can therefore have a positive impact on their approach to learning by helping to give them a sense of control over their own learning.

*"Practice makes perfect"*

*"Intellectual development is not so much the natural unfolding of intelligence, but rather the formation of new connections brought about through effort and learning" Carol S. Dweck*

## Websites

- \* [centreforconfidence.co.uk](http://centreforconfidence.co.uk)
- \* [mindsetonline.com](http://mindsetonline.com)
- \* [mindsetworks.com](http://mindsetworks.com)
- \* [mindsetkit.org/growth-mindset](http://mindsetkit.org/growth-mindset)
- \* [jamesnottingham.co.uk/about/learning-pit](http://jamesnottingham.co.uk/about/learning-pit)

## The Learning Pit

The learning pit is a helpful way to explain how challenge enhances learning. The 4 key stages are:

### Stage 1: CONCEPT

Pupils should have a basic understanding of the concept and it can come from the media, conversation, observations or deliberate study.

### Stage 2: CONFLICT

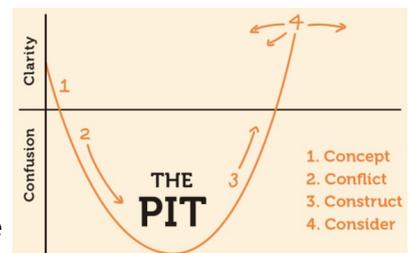
Once the concept has been agreed, the teacher should then create "cognitive conflict" in the pupils' minds (i.e. when the pupils have at least 2 opinions in their minds, both of which they agree with but which are in conflict with each other).

### Stage 3: CONSTRUCT

Pupils are given the opportunity to construct meaning for themselves. After they have struggled in the *Pit* for a while some of the pupils will begin to make meaning, and begin to move from confusion to clarity.

### Stage 4: CONSIDER

The final stage encourages pupils to reflect on how their thinking has changed, been adapted and/or constructed throughout the course of the lesson. This metacognitive process is a crucial stage in the learning process.



## Books

- \* *Mindset: The new psychology of success*—By Carol Dweck (2007)
- \* *Mindset: How you can fulfil your potential*—By Carol Dweck (2012)