

## Changing the minds of teachers

If you were asked to describe the difference between the mind and the brain, what would you say? In *A Mindset for Success* we describe the brain as the physical entity in our heads and the mind as the outcome of the way our brains function. You will recall that an exciting development over the past few years has been our understanding of the brain's plasticity and that it can, to a certain extent, change its physical structure through the way we think or the way that our mind operates. It is important for us to remember that the way we think with our minds is a result of the data we have stored in our brains, and this data comprises not only the knowledge and information we have acquired but also all of our habits, attitudes, expectations, beliefs and values.

All of these associations are created by connections in our brain (neurons connecting with other neurons) which are pretty much hardwired. This may lead to the idea that changing our minds (by changing our brains) is not going to be possible. Well, the bad news is that it's not easy, but the good news is that it is possible. The way our brains have become hardwired with neuronal connections allows us to carry out most of the things we do on a daily basis without consciously thinking about them. Once you learn to walk, talk, tie your shoelaces, ride a bike and drive a car then most of the complex actions involved in each of these activities happen without us having to consciously think. This frees up our conscious mind for the tasks that absolutely require this. So, our subconscious (or unconscious) mind carries out most of our actions and the conscious mind is used to fine tune the detail of what we do.

There are different models that try to describe this process. Daniel Kahneman<sup>1</sup> refers to fast and slow thinking. The fast thinking comes from our subconscious mind and the slow thinking comes from our conscious mind. The reason why all of this is important is that changing our minds requires, to some degree, a rewiring. And the problem with this is that it's not easy to remove wiring in our brains without some sort of physical intervention, and clearly this is not entirely desirable! However, we can add new wiring, which we are doing all the time as we think. To change our minds (or, in other words, to change a belief, habit, attitude or expectation), we can start to add wiring that counterbalances what already exists. Take a fixed mindset belief that someone might have about intelligence, which is that individual intelligence is set and there is not much we can do to change it. If this is a deep-seated belief then it's not likely that it will change overnight. On top of this there can be a reluctance to give up a belief that we have formed, because we tend to think that this belief is part of who we are. And just as we would be clearly reluctant to lose an arm or another part of our body, we can also feel a sense of loss when giving up a belief we have. Changing our belief about Santa Claus may be an example for many of us of the loss we felt when we altered a belief.

This gives us some clue as to why it can be difficult to change the minds of teachers once they have adopted a belief. And because teachers have such powerful beliefs, which are so deeply felt that they tend to guide and drive their actions on a daily basis, it is not easy for them to change their minds or change their beliefs. How then is this achieved? Well, in most cases, I would say that this needs to happen in a fairly steady way as part of a gradual process. My experience of working on shifting mindsets in schools is that just when you think you have made progress, something is said that seems to torpedo this idea.

An example of this occurred in one school where I was doing mindset training. After having worked with the school staff more than half a dozen times, one member of support staff observed that the school could use the new knowledge of mindsets with groups of HAPs (high achieving pupils), MAPs (middle achieving pupils) and LAPs (low achieving pupils). The challenge here was how something

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<sup>1</sup> D. Kahneman, *Thinking, Fast and Slow* (London: Penguin, 2012).

that was accepted in the culture of the school as a useful way of describing and differentiating between pupils may have unintended negative consequences in terms of any attempt to develop growth mindsets. The positive outcome from the resulting discussion was that the potential hidden messages behind HAPs, MAPs and LAPs labelling was brought out into the open and discussed in a conscious way, so that the teachers and support staff were more aware of possible dangers from labels that we attach to individuals or groups of students.

It's important to provide teachers with evidence about IQ measures and the way that mindsets impact on the learning and development of children, and indeed all of us. A starting point in terms of IQ intelligence (a measure of short-term memory, analytical thinking, mathematical ability and spatial recognition) is to make it clear that this is not fixed. The first IQ test was devised by the French psychologist Alfred Binet, but he never meant for IQ to be thought of as fixed. This is something which, maybe surprisingly, is not well known by many people in education.

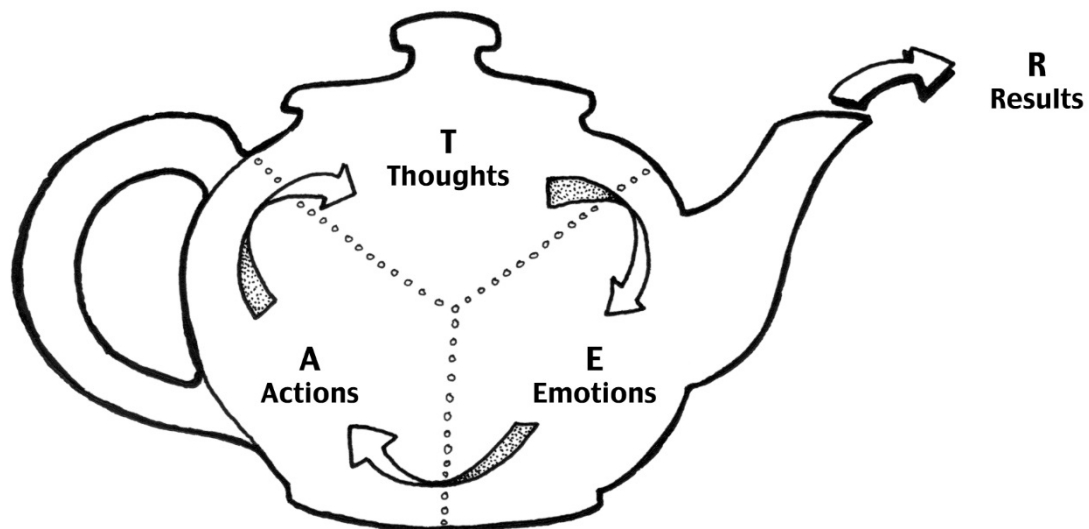
But just giving this information to teachers may not be enough to change their belief about IQ; rather it requires a drip-feed approach. A one-off twilight session for teachers on mindset may be interesting and might even have an immediate impact on some classroom and whole-school practice. However, it is very unlikely to have longevity as teachers may well revert back to their default mode of (subconscious) thinking once the overwhelming complexity of the school environment begins to overtake their conscious attempt to employ mindset thinking in their classroom. Teachers need to commit themselves to deliberate practice, and this is more likely to happen through a series of training inputs over a period of time. I would recommend that at least a 12 month period will be required for a mindset for success culture to be established, with further ongoing checks to ensure the culture of growth mindsets remains embedded in the school.

## Changing the minds of pupils – breaking the cycle

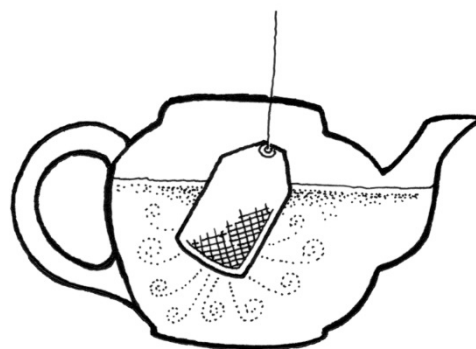
It is ultimately the pupils that we are working for, and even at a very early age, they will have started to form very strong opinions and beliefs. There are some key influences on the way their minds will have developed, including the family, peers, the media and indeed the school. All of this may seem to make our task, as educators, of changing their mindsets somewhat impossible. But it isn't. Teachers make a real difference to the development of the pupils in their care (though it is important for us to be honest and say that some teachers make a much bigger difference than others, and that some may unfortunately even inhibit the learning of the students). All the research tells us that this is the case. The combined impact of all the teachers and support staff in the school can be enormous. It is crucial, therefore, that a consistent message is delivered to the pupils, and this is why any mindset intervention should involve everyone in a holistic approach. The consistent and constant message they receive then comes from the culture of possibilities in the school.

### TEA-R

All adults in the school need to be aware that, for many students, a powerful, negatively self-fulfilling cycle will need to be broken. I call this the TEA-R cycle: *thoughts* impact on our *emotions* which then impact on our *actions* which bring about the *results* we get. And so the cycle continues, with the results feeding back into our thought process and beginning the cycle once more. If we want to get different results then we need a new TEA-R cycle. But where do we tear, or break into, the TEA-R cycle?



As educators we may at times focus on the actions of an individual and try to persuade them to change these. However, this is often working backwards, and it can be hard for children to change their actions when their thoughts and emotions are driving them along a particular route that is well established. A more powerful way is to get them to consider their thoughts and how these are either helping them or hindering their progress. (It should be noted that it may, on occasion, be possible to persuade a child to change their actions which can break the cycle. However, if the deep-seated thoughts are still functioning in an old TEA-R cycle then they might easily default back to this when they are not consciously 'thinking'.)



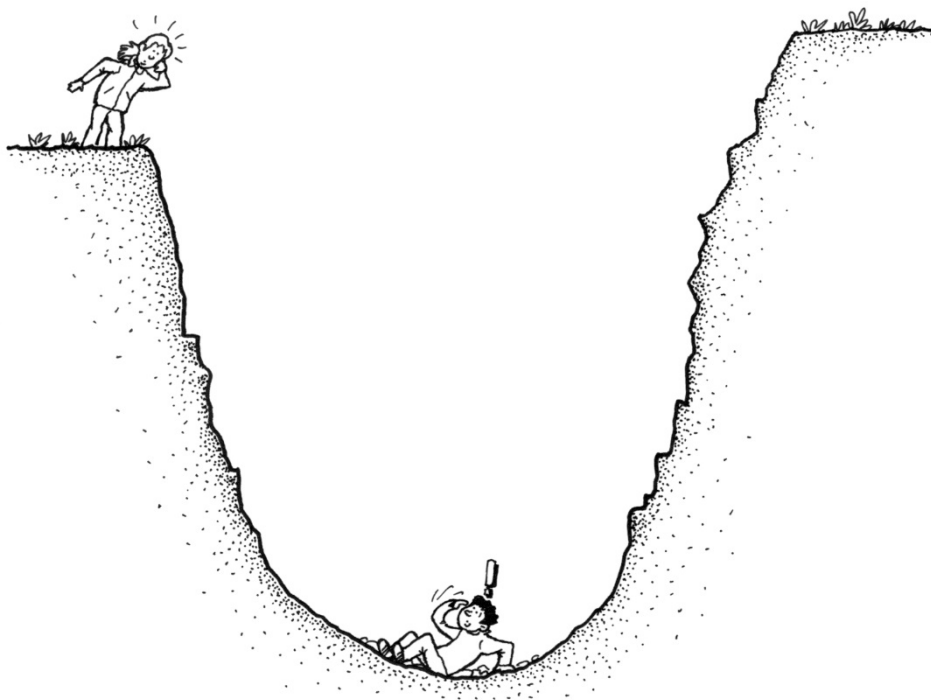
In describing to pupils how the TEA-R cycle works, you can use a glass cup or teapot so they can see what is inside. You then take a teabag with string attached to it and put it into the pot and pour cold water onto it. If you leave it undisturbed for a minute or so the water will not colour very much. Even if you dunk the teabag up and down a few times the water may not change colour a great deal. Then pour out the water and remove the teabag. Take another teabag, put it into the empty teapot and this time pour boiling water onto it. After a few seconds the water should start to colour around the teabag. And if you dunk the teabag up and down in the hot water, this time the water will get progressively darker. Continue to do this for a little while, letting the teabag stew in the water, and you will, of course, find that the water gets very dark. You might then empty out the water and teabag from the pot once more and use another teabag of a different flavour (coloured fruit teas work well), repeating the process just described, first with cold water and then with hot water.

The different teabags represent different thoughts, the temperature of the water represents the level of emotion associated with our thoughts, and the number of times we dunk the teabag into the water represents the number of times we repeat our thoughts. The degree to which the water is

coloured represents the level of impact the thoughts have had on us and our minds. Our mind can get into a very dark place with unhelpful thoughts. We often refer to 'stewing in our thoughts' in the same way as we refer to tea being stewed when left for a long time in a teapot. The point of this extended metaphor is that we want to give the pupils a way to understand that they can change their thoughts and that they can have control over this if they choose to do so. This may be one of the most important messages we can give to them. This is part of pupils learning about metacognition, or thinking about their thinking, which will support them throughout their lives. It is fun and powerful. Once again, it is important that when we work with pupils on mindsets we recognise that it always works best if it is a drip-feed process rather than a one-off message. The model given here is a useful way of giving the students a tool to use to think about their thinking. However, it works best when we frequently refer back to this and remind them that they do have the ability to control their thoughts.

In *A Mindset for Success* we look at a number of ways in which we can support children to develop a constructive growth mindset. Equally, however, with the wrong kind of message (which we can sometimes give with the best of intentions, according to the law of unintended consequences) we can push them into destructive fixed mindsets. (Praise is an example of how the things we often intend to be highly positive can have some negative unanticipated consequences.) Many of the teachers that I've been working with on the mindset for success programme are dealing with very powerful negative self-fulfilling TEA-R cycles in many pupils. These have been hardwired into their brains – for example, sometimes three or four generations of their families have been living on benefits. Children in these circumstances clearly face a difficult and perilous climb if they are to get out of the pit of low aspirations, often created by negative family talk and reinforced by unhelpful self-talk. Many children have to battle with what I call 'the valley of the poverty of aspirations'. We need to support them in their struggle to climb out of this valley in order that they can operate on a relatively level playing field with other children.

**The valley of the poverty of aspirations:**



A note on metacognition: meta strictly speaking means 'beyond' and cognition is how we go about acquiring knowledge and understanding through our thoughts, experience and senses. Putting the two together gives us metacognition, which effectively takes us beyond the first stage of acquiring

knowledge and understanding to the higher level of 'cognition about cognition', 'thinking about thinking' or 'knowing about knowing'. In terms of its use with mindsets, metacognition helps the students to understand how they can take charge of their beliefs, habits and attitudes towards learning so that they can learn more effectively. From the TEA-R model, we can see how our emotions are influenced by our thoughts and how our emotions guide the approach (actions) we take. In this case, metacognition is about the way in which the students think about the way they are thinking in order to then think more constructively and in such a way that it positively influences their emotions, actions and results.

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